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ABSTRACT

This report presents results of a visit of vocational education practitioners from the United Kingdom to the Federal Republic of Germany (FRG) to study the spread of career development education. An introduction describes vocational education and training in the FRG and the activities of the three groups of specialists in the visiting party who studied the curriculum, teaching methods, numbers, and career opportunities in their fields as well as general issues. The reports of the three groups, representing respectively, the mechanical engineering hotel and catering, and business administration fields, are given in the next three sections. The engineering group report looks at general career development opportunities as well as the further qualifications that may be obtained. The business and administration group report focuses on the way in which further education is built upon the foundations of the "dual system" and the role of employers in the design of further education; entry requirements, the curriculum, students, and teachers in the Fachschule; and in-firm training. The hotel and catering group report describes the curriculum in the Fachschule and outside influences. A section of general observations drawn from the groups' reports and general experience is followed by three sections that contain the specific conclusions and recommendations of each group. Appendixes include a description of the dual system, curricula, and a glossary. (YLB)

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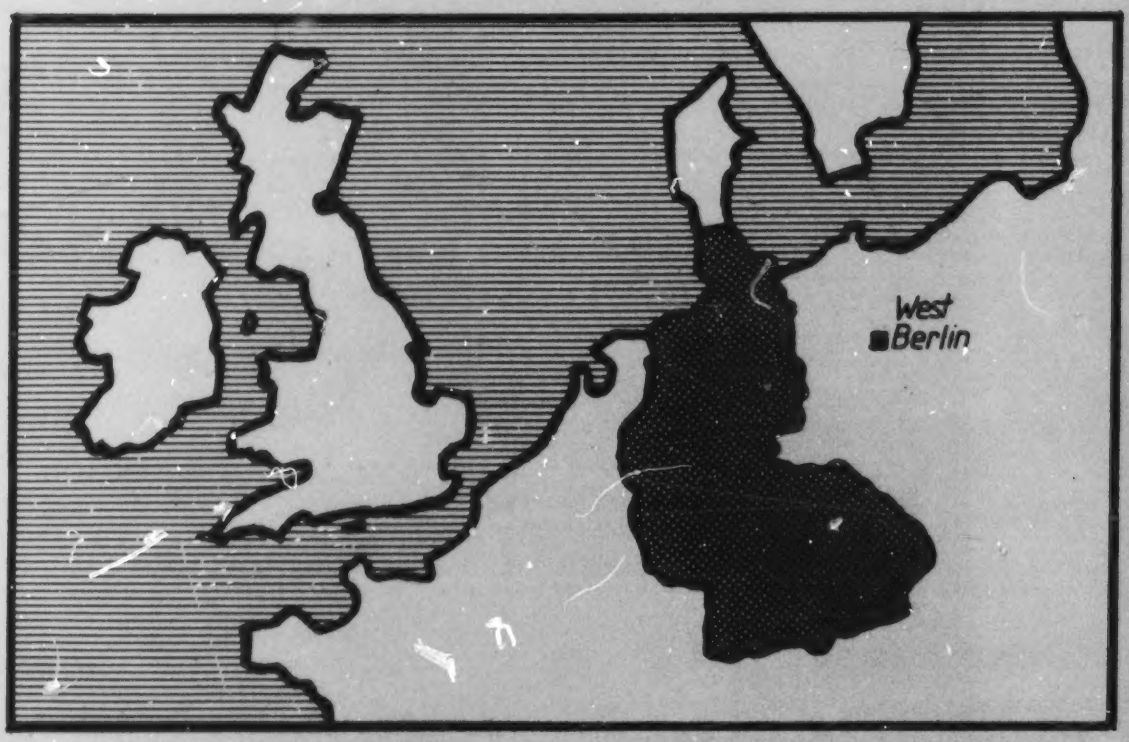

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CAREER DEVELOPMENT EDUCATION IN THE FEDERAL REPUBLIC OF GERMANY

The report of a visiting party

Edited by Russ Russell and David Parkes

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PREFACE

This report is made by a party of practitioners in Vocational Education from the United Kingdom who visited the Federal Republic of Germany in March 1983. The visit was organised by the Further Education Staff College - FESC - (Coombe Lodge) and the British Council as one of a series of visits being planned and co-ordinated jointly by the FESC and the British Council at the request of the Department of Education and Science. The main travel expenses are being met by the Central Bureau for Educational Visits and Exchanges, while the main administrative expenses are being met by the British Council.

The United Kingdom - UK - and the Federal Republic of Germany - FRG - have similar industrial structures, comparable populations, and broadly similar patterns of vocational education and training, youth unemployment and ethnic minorities. There are constitutional, organisational and financial differences between the two vocational education and training systems but they both share the characteristic of having a dispersed pattern of authority which makes change slow and necessitates that change is made by agreement and is frequently developmental rather than radical.

It would seem therefore that the British can gain most in any comparative study of UK and FRG from developing an understanding of how the German system works in terms of the motivation and attitudes of its young people towards mobility, industrial co-operation and the quality of their work and social participation. In other words it is in the content and process of the German approach that the British interest principally lies. Attention is being paid to the attitudes of employers, trainers, trade unions and of the wider society to the young people because that can also provide understanding of the sources of the attitudes.

This report is the result of a visit of a party of experts which contained within it three different specialisms selected to represent a range across the industrial, commercial and craft activities in the Federal Republic of Germany and to explore the typical paths of careers. They were Engineering (Mechanical); Hotel and Catering; and Business and Administrative specialists. They conducted some visits separately, some with two groups together, some all together, and occasionally individuals detached themselves to make a more detailed investigation of particular interest. These three groups thus worked fairly separately in order to create a report which represents the spread of career development opportunities.

The visiting party was selected from a list of nominations in order to give an appropriate mixture of types of responsibility and experience for the study topics in mind. Further details of the visiting party and of the process of writing the report are given in Appendix H to this report. Although the visiting party was briefed before leaving for FRG none would claim to be an expert on FRG and therefore the group relied heavily on what they were told. Thus the ideas, information and views received by the group were defined by the particular select and short programme of visits (set out in Appendix I to this report). The report is presented acknowledging the limitations in such a process.

This report has been written in such a way as to try to minimise detailed structural descriptions of the institutions and systems in the FRG. Readers unfamiliar with the system in the FRG may therefore like to read Appendix A to this report before embarking on the main text. A full glossary of terms and abbreviations is contained in Appendix J.

The party presents this report and its recommendations for consideration and gratefully acknowledges the immense assistance and generous hospitality of the host institutions in the Federal Republic of Germany. The report does not necessarily represent the views of any of the institutions mentioned above, or the institutions from which the party was drawn.

I INTRODUCTION

1 It is frequently noted by observers from the United Kingdom - UK - that vocational education and training in the Federal Republic of Germany - FRG is more systematically developed in the FRG than in the UK. At the heart of this, it is noted, is the Dual System: a system whereby most young people enter work with an apprenticeship (or training contract) in which they receive on the one hand practical instruction at work to national training regulations laid down for their trade; and on the other hand day-release for appropriate theoretical and general education for their trade in a Berufsschule (Vocational College - Part-time).[1*]

2 In the past ten years this system has been progressively developed and expanded to a point where it encompasses more than 65% of all school-leavers, and over 80% of those who leave school at 15 or 16. In 1982 for example 667,000 young people applied for apprenticeships and 631,000 received them, while a further 20,000 places were unfilled.[2] This can be put down to a 'friction' in the labour market: the wrong apprenticeships in the wrong towns. Now that the numbers leaving school are beginning to decline (655,000 applications were expected for 1983) few believe that the system can be significantly expanded.

3 Many official bodies expressed great pride in the Dual System. The Deutsche Industrie- und Handelstag - DIHT - (German Federation of Chambers of Industry and Commerce) says in its pamphlet *"The Dual System"* :

> *"The quality symbol 'Made in Germany' is inconceivable without an efficient training system."*[3]

The Bundesministerium für Wirtschaft - BMWi - (Federal Ministry of Economic Affairs) in its pamphlet on Craft Activities says :

> *"In accordance with current statutory regulations training is carried out under the 'Dual System'. The* Handwerk *organisation provides training primarily in order to ensure those skilled recruits without whom it cannot continue to exist. But it has always trained more apprentices than it requires for its own needs. Some qualified craftsmen transfer to industry, to public service, or to other*

---

*All notes are in Appendix G

spheres of work. Thus the surplus of skilled workers benefits the entire national economy."[4]

In general foreign observers agree but find it difficult to pass comment or learn lessons which are easily transferred to their own countries.

4 Two main reasons come forward for the difficulty of transferring lessons :

a. firstly the system is seen as having its roots in the mediaeval system of Meister (Master Craftsman) and Innungen (Guilds) and thus a long developed tradition.

and

b. the current institutional framework that surrounds and supports the Dual System does not exist in other countries.

It remains unclear how valid these arguments are and we shall not discuss them in this report.

5 Two further but related reasons are advanced in the UK concerning the particular difficulty of transfer of lessons to the UK :

a. it is difficult to imagine the UK employers, currently offering apprenticeships at about 10% of the rate in the FRG, expanding their provision of apprenticeships

and

b. it is difficult to imagine the UK trade unionists agreeing to apprentice wage rates as low as those of apprentices in the FRG.

6 It can be a subject of great debate of how significant the low apprentice wages are to the motivation of the employers in the FRG. It is certainly true that they are on average low. The apprentice in the FRG gets, on average, only just over 40% of the skilled worker rate.[5] The actual rates are subject to trade-by-trade negotiation and vary with the market. The average apprentice rate is made low by large numbers of apprentices in poorly paid trades. Some unpopular trades or trades that only appeal to a narrow range of the total population achieve high adult rates and high percentage rates for apprentices. The net result can be indicated in the following table :

Average apprentice wage during all stages of training in 1982:		
Mining Mechanic	988DM per month	approx. £61.75 per week
Bricklayer	905DM " "	" £56.56 " "
Bank Clerk	788DM " "	" £49.25 " "
Sales Girl	551DM " "	" £34.44 " "
Carpenter	481DM " "	" £30.06 " "
Hairdresser	304DM " "	" £19.00 " "

6

7 It is not useful to make here the arguments against the centrality of low apprentice wages for the employers. It is much more interesting here to seek the reasons why, despite the low wages, the system remains popular with young people and with their parents. For the young men (whose wages tend to be higher) it creates a form of continuation of parental dependence between leaving school and entering military service. For the young women (whose wages tend to be lower) it creates effectively a total financial parental dependence until they quality.

8 Parents seem at the very least to accept the system, for the following reasons :

a. the qualified skilled worker earns more than the unskilled even when working in other trades;

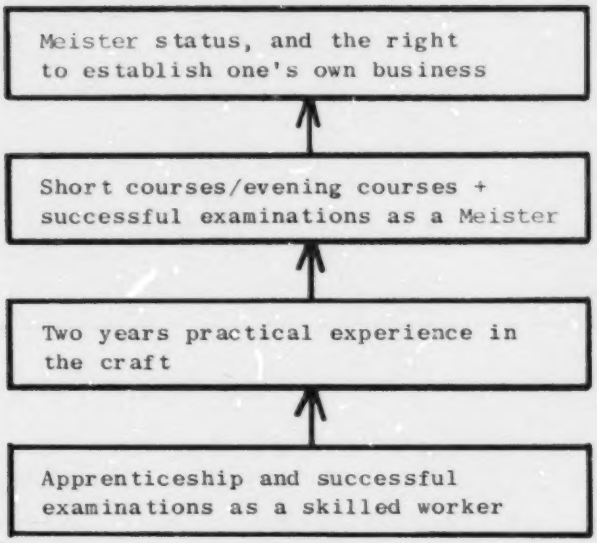
b. the social status and standing of skilled workers is high and supported throughout the social structure;

c. the qualification of skilled worker gives access to a range of formal qualifications for technician, quality-control, supervisory and middle-management jobs, as well as other forms of access to higher education;

d. in many fields the bulk of technicians, quality-control, supervisory and middle-management staff are recruited from the ranks of skilled worker (ex-apprentice) who usually, but may not, take the qualifications referred to above. This is further described in paragraphs 17 to 19.

For these reasons, most parents are both proud and regard it as their duty to give their children access to the status of skilled worker. Their children seem to concur. It is possible for the cynics to say that the non-apprentice is doomed: mere ability, knowledge, skill and hard work will not lead to promotion or recognition except via an apprenticeship. This is also to an extent true. It is possible thus to argue that one of the powerful driving forces of the Dual System, with its 650,000 new apprentices each year, is the system of further vocational education. The latter is a major explanation of the former. No study therefore of the Dual System is complete until it has been seen in terms of the system of further vocational education and career advancement.

9 For each trade area the pattern of further vocational education varies. No overall single simple uniform system applies. Nevertheless there are, as always, some key patterns and lines of development. The traditions of training do indeed lie in the systems of crafts. Handwerk (as the hand crafts are known in the FRG) has always had its own simple tradition.[7] If one wishes to practise independently one of 125 designated Handwerk crafts, to advertise the trade or take on apprentices one must quite simply be a Meister (Master Craftsman). In order to become a Meister, a skilled worker must practise the craft after qualification for at least two years and take further examinations to become a Meister. The pattern is as follows :


Meister status, and the right to establish one's own business
Short courses/evening courses + successful examinations as a Meister
Two years practical experience in the craft
Apprenticeship and successful examinations as a skilled worker

In accordance with the legal rights of the Meister (as well as the consumer rights of the public) the Meister courses and examinations have come to contain four main elements for the individual development and examination of the Meister : [8]

a. appropriate theoretical and scientific knowledge

b. appropriate craft skills

c. public and trading law, accounts etc.

d. pedagogy, and the training of apprentices.

10 Any individual or business operating in the Handwerk area must register with the local Handwerkskammer (Chamber of Crafts). The local Kammer (Chamber) registers, approves and supervises all apprenticeships. It sets and conducts the examinations both for the skilled worker status and the Meister status. When a Handwerk enterprise grows large or diversifies it may transfer its registration to the local Industrie- und Handelskammer (Chamber of Industry and Commerce). All other enterprises register with the Industrie-und Handelskammer. In the politics of economic policy and development the two groups are known generally as 'Handwerk' and 'Industrie'. Apprenticeships in Industrie are registered, supervised and examined by the Industrie- und Handelskammern.

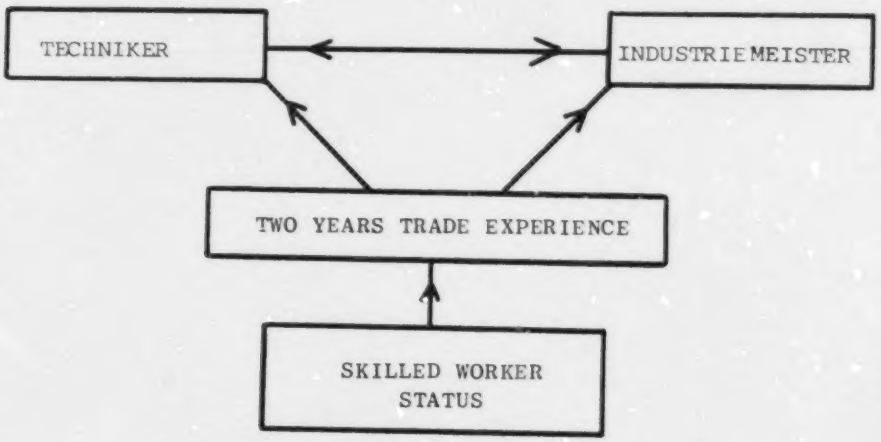
11 In the more technical areas of Industrie (such as engineering, building, printing, etc.), where the trades are often the same as the Handwerk area, the larger firms have always respected and recruited skilled workers and Meister from Handwerk. Nevertheless they have not been entirely satisfied with the Handwerksmeister qualification. Accordingly they have both encouraged and participated in the formation of two alternatives :

a. the Techniker (Technician) - with a very strong emphasis on theoretical knowledge[9]

8

b. the Industriemeister - where the public law, accounts, etc. syllabuses are replaced with a syllabus suitable to a supervisor or middle manager in a firm and not an employer. Theoretical training and quality control may also be emphasised in the courses.[10]

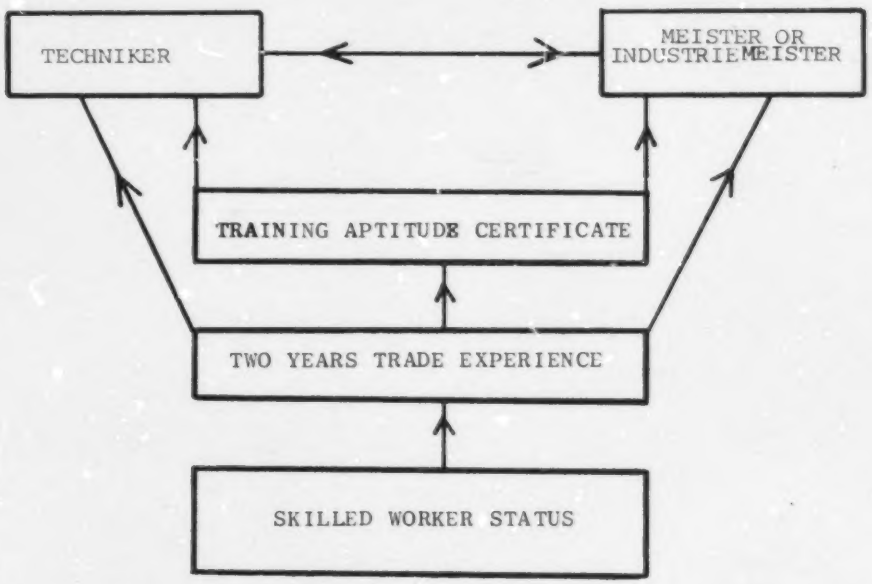
The pattern thus looks like this :



It is possible, but a little unusual, for skilled workers to obtain both of the advanced qualifications.

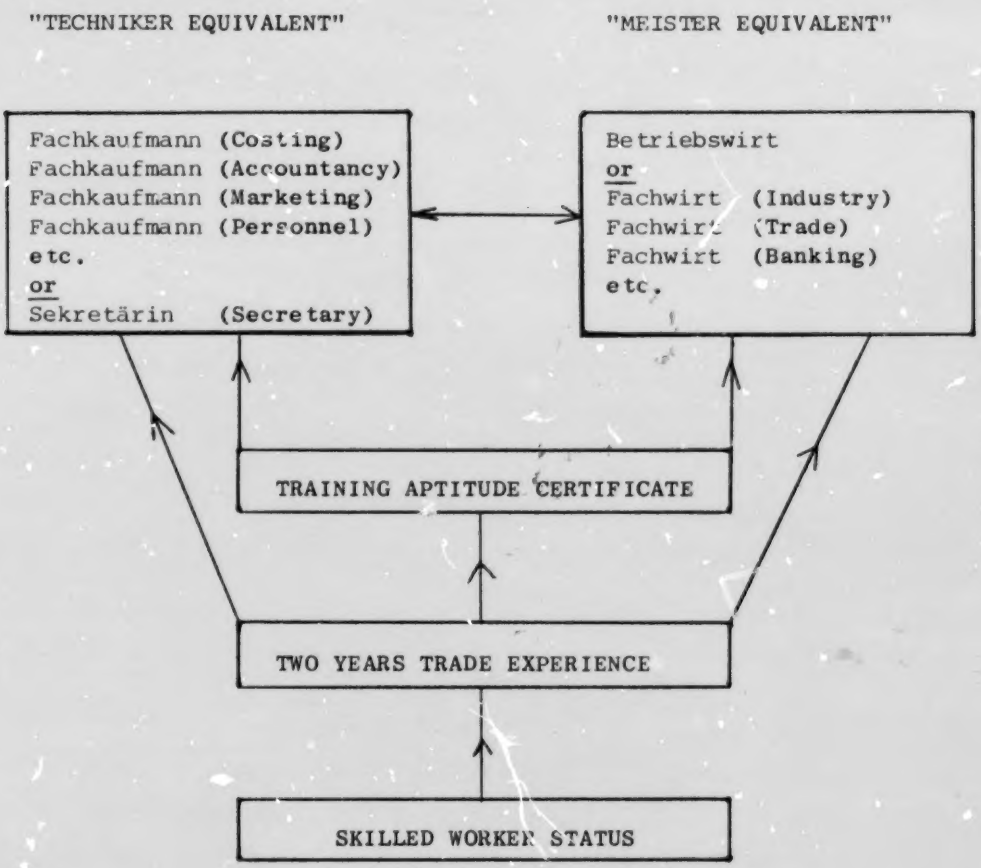
Continued overleaf:

12 There is pressure on both Handwerk and Industrie to ensure that all apprentices are supervised by qualified personnel. There is always a difficulty in guaranteeing that there is always a Meister to conduct *all* supervision of the apprentice so a new qualification has been developed in addition to the two above: the Training Aptitude Certificate - TAC. This certificate (TAC) is an abstract of the pedagogical elements of the Meister certificate. As with the Meister, it can only be taken after two years practical experience in the trade. We can present the aggregate pattern as follows :

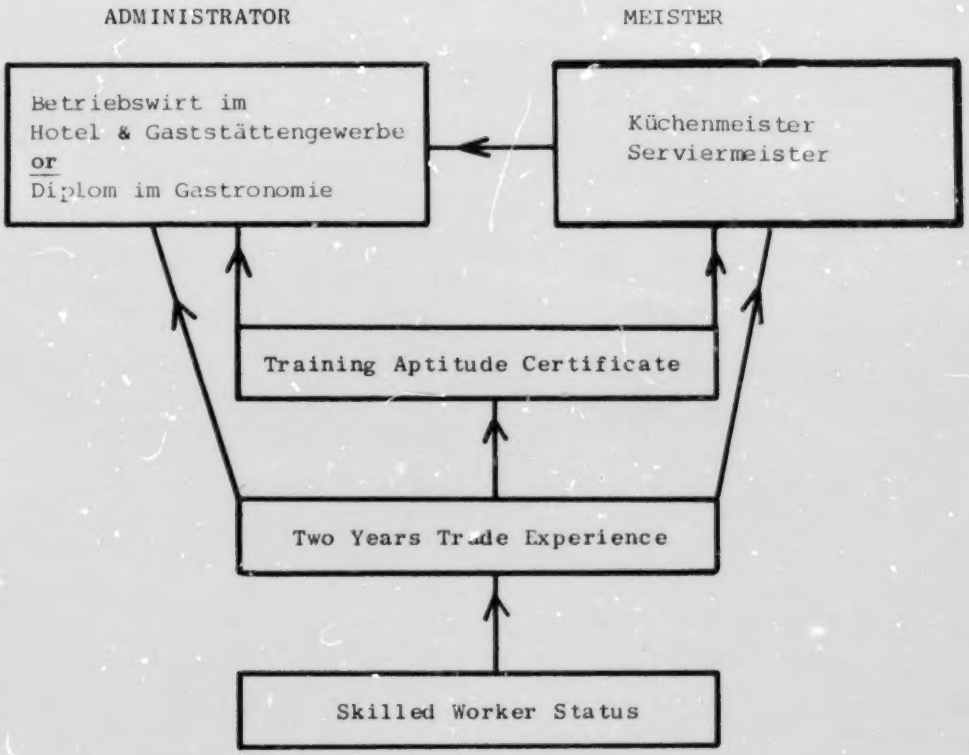


It should be noted that courses of study for these examinations are available on both full-time and part-time bases. The location of such provision for these trade areas, and for the other trade areas, is discussed in the appropriate sections of this report. It is sufficient to say here that it is always in specialist institutions, not the Berufsschulen that the skilled workers went to during their apprenticeships.

13 In the 'Commercial' areas of Industrie a similar pattern has developed except that the language and titles are different in that the Meister status does not exist as such. The Meister is replaced by General or Industrial Administrator and the Techniker by Functional Experts so that the pattern is as follows :



14 Hotel and Catering, as a third example, stands a little between the two traditions. It has always been regarded by some as a craft yet has never been formally recognised as Handwerk . As a consequence it has developed both Meister status and Administrator or Manager career routes. Therefore its pattern has become as follows :



15 In addition to courses and formal qualifications described above, there exists very wide range of short courses. These are organised by a very wide range of bodies: Employers; Chambers of Industry & Commerce or Crafts; Trade Associations; Guilds; Trade Unions and local Adult Education Institutes all play a part in a rich provision which, like such provision in the UK is poorly monitored or recorded. One striking difference between the FRG and the UK is, relatively speaking, the very small part played by Berufsschulen or Fachschulen (where skilled workers and Meister etc. are taught) in this context in the FRG. These short courses are important in career advancement and in maintaining an efficient productive economy.

16 This report is the result of a visit of a party of experts which contained within it three different specialisms selected to represent a range across the industrial, commercial and craft activities in the Federal Republic of Germany and to explore the typical paths of careers. They were Engineering (Mechanical); Hotel and Catering; and Business and Administrative specialists. They conducted some visits separately, some with two groups together, some all together, and occasionally individuals detached themselves to make a more detailed investigation of particular interest. These three groups thus worked fairly separately in order to create a report which represents the spread of career development opportunities. Each group studied the curriculum, teaching methods, numbers, studied the career opportunities in their field as well as general issues. In the end they drew up

recommendations largely for their own field and the abstracted general comments have a lower level of consensus. It is not expected that many readers will read all this report. Many will wish to read this introduction, the special section that interests them, the conclusions of that section and the general observations.

17 In attempting to study the details of numbers and ratios involved in the various forms of career development education the visiting party was frequently frustrated by the contemporary lack of clear data. This is beginning to change as political attention shifts from the Dual System to the Further Training System. It is noticeable that the annual training report of the Deutsche Industrie- und Handelstag - DIHT - added the word Weiterbildung (*Further* Vocational Training) to its title in 1979; and data has improved. Since the visiting party returned the results of what are to be annual 'micro-censuses' by the Bundesanstalt für Arbeit - BFA - (Federal Labour Office) have been published. In addition the joint commission of the Federal Government and the eleven Länder (states of the FRG) for education planning has called for a new survey of the field on common criteria. At the moment no clear overall statement on the activity of the Länder in this field exists since all eleven publish their own data on varying analytic categories. The shift of interest was seen by the visiting party as itself interesting.

18 The economy and the labour market in the FRG are, where compared to the UK, very free of detailed restrictions on who may be employed at what trade. There are some restrictions on a few trades directly of public concern (e.g. assistant pharmacist) but the normal trading restrictions fall mainly on the Meister: he must be highly qualified to trade, but he may employ whom he wants. The trade unions are not highly restrictive about who may undertake skilled work (but are very insistent on the 'proper' pay for the work). This situation means that the patterns of careers given above and the possible implication that promotion is largely through formal qualification is not always the case. In 1979 the BFA conducted its first detailed sample survey of 30,000 people in the workforce. It was the success of this survey that has led to the micro-censuses referred to in paragraph 17.

19 A principal result of this BFA 1979 survey is expressed in the following table in which the numbers have been extrapolated to represent the whole work-force.

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A	Total of people in Federal Republic with a craft qualification (ie. Facharbeiter, Geselle)	8,355,000	100%
B	Number of A. who had attained additional status by obtaining a further qualification at :		
	i. a university	62,000	0.7%
	ii. a Fachhochschule	262,000	3.1%
	iii. a Fachschule (including Meister, Industriemeister Techniker)	1,016,000	12%
C	Number of A. who moved into another status group without additional certification, as follows :		
	i. unskilled or semi-skilled job	872,000	10%
	ii. white-collar job (including Meister, Industriemeister	1,351,000	16%
	iii. civil service position	357,000	4.2%
	iv. self-employed position[12]	544,000	6.5%
	v. other	94,000	1.1%
	vi. total of ii,iii,iv and v	2,346,000	28%
D	Number of A. remaining in status group of craftsman	3,797,000	45.4%
E	Number who moved into craft status group without having obtained a craft training and education	556,000	-

It is very clear from this data that, at least in the past, it was fairly easy to improve one's career without formal qualifications. But it is difficult to fully interpret this table. It must be remembered that the labour force in 1979 would include people with work careers beginning in 1939 and certainly a lot of people would have benefitted in career terms from the booming industry between 1950 and 1966 (before the system of full-time further training got off the ground). There has also been, as in all industrial economies, a marked bureaucratization of manufacturing and a shift to service industries. Regrettably the key category in interpreting the table in this area (C ii.) remains unanalysed into Meister-type employment, Techniker-type , and clerical. It should also be recognised that many of the formal qualifications referred to in this report (Betriebswirt, Techniker, Industriemeister etc.) are, in their present form, the result of developments in the late sixties and early seventies. The system of grants, now replaced by loans, to allow for full-time study arose mainly from the 1969 Vocational Training Act, thus popularizing full-time study. Gradually promotion without qualification is getting less frequent. Nevertheless, although the system will remain open, the restriction of opportunity for the non-qualified proceeds.

20 An outline of the development of the alternative formal qualifications was given earlier in paragraphs 9 to 12. We will however repeat some of the basic ideas.

GENERAL CAREER DEVELOPMENT OPPORTUNITIES

21 Most pupils who leave school without the intention to proceed to a course of higher education will enter an apprenticeship or training contract in one of the 440 or so registered trades. There are more than 60 defined trades in the general area known as Metall. Some of these trades exist in both Industrie and Handwerk (see also paragraphs 9 and 10). The Handwerk trades are listed in Appendix B. The apprenticeship will involve 3-4 days per week receiving training and experience in the trade concerned, generally on the premises of the employing organisation, and 1-2 days per week attendance at a Berufsschule for both general and trade-specific education. After about three years the apprentice will take final examinations and if successful will gain skilled worker (Facharbeiter or Geselle)[13] status.

22 The opportunities thereafter may be divided into two categories :

a. the gaining of further qualifications to improve status and enhance prospects for job advancement;

b. the gaining of further education and training to extend knowledge and expertise, usually without obtaining any formal qualification.

Under a., the further qualifications which may be obtained are :

(i) Meister (in Handwerk)
(ii) Industriemeister
(iii) Techniker
(iv) Training Aptitude Certificate

Another possibility would be to proceed to a university or Fachhochschule with a view to gaining a degree-type qualification (for engineers this would be a Dipl. Ing.). Such a route might involve first achieving status (i), (ii) or (iii); alternatively the skilled worker might proceed directly to a Fachoberschule in order to gain the entry qualification for university or, more probably, Fachhochschule.[14]

THE TWO CATEGORIES OF MEISTER

23 There are two main categories of Meister, those who qualify through satisfying the requirements of a Handwerkskammer (Chamber of Crafts) and those who satisfy the requirements of an Industrie-und Handelskammer (Chamber of Industry and Commerce) (see also paragraphs 9 and 10). To differentiate between the two categories, the former will be referred to simply as Meister and the latter as Industriemeister Handwerkskammern are involved with more craft-oriented trades and mostly with small firms and organisations, while Industrie-und Handelskammern are concerned with medium and large firms and organisations and the trades associated with them. Some trades come under both types of Kammer; for example, a baker in a large automated bakery would obtain his/her qualification via an Industrie- und Handelskammer and a trainee in a small traditional bakery would go through the system of a Handwerkskammer. The Kammern are organised on a regional basis, there being 42 Handwerkskammern in the Federal Republic and 69 Industrie- und Handelskammern. The Handwerk trades are given in the list of 125 in the 1953 'Law for Regulation of Handwerk', 34 of these being in the metal-working trades grouping (see Appendix B).

24 A Handwerk business may only be carried on by registered Meister, and all such business activities (individuals or firms) must register with the local Handwerkskammer and pay the appropriate fees. Business activities outside the Handwerk areas must similarly register with the local Industrie- und Handelskammer.

25 All training must be supervised by appropriate qualified personnel. These may be higher education graduates or skilled workers with a Training Aptitude Certificate but are usually qualified Meister or Industrie-Meister. Meister and Industrie-Meister examinations include a pedagogical element.

EXAMINATIONS AND PREPARATION FOR THE MEISTER (IN HANDWERK) QUALIFICATION

26 In order to become a Meister, one must pass a series of examinations and tests after two years practice in the trade. The setting of these examinations is organised by the appropriate local Handwerkskammer and the certificate is issued by that Kammer, although Meister examinations are ultimately the responsibility of the Federal Ministry for Education and Science. As an example, the examination of a toolmaker in an area of Baden-Württemberg includes the following elements :

a. the making and construction of a complex engineering device to meet a set specification (40 hours is allowed);

b. a number of practical tests to assess skills not included in a. (8 hours duration);

c. teaching aptitude test (2 hours preparation time is allowed for the candidate to prepare a topic on which instruction must be given to a group of students for 2 hours);

d. the syllabus in public law, trading and accounts.

The current fee for the examination (1983) is DM700 (£175). The average examination pass rate was stated to be 79% for Meister examinations in general.

27 It is not obligatory to take a course of preparation for the Meister examination, although it was suggested that the chance of success would be low without such a course. Full- and part-time courses are available, normally the former being of one year and the latter of two years duration (usually evenings and Saturday mornings). The part-time courses are generally organised by the Handwerkskammer and may take place on its premises or on those of a local college. The full-time courses may be organised by the Kammer or by a local college. A publication of the Bundesanstalt für Arbeit[15] lists full-time and part-time courses on offer in the Metal Trades in the Federal Republic in academic year 1982-3. Fees for courses apparently vary from place to place, but that charged for a one-year full-time course in a college in Mannheim is DM960 (£240) and for a two-year part-time course the fee is DM580 (£145) per year (Appendix C shows the curriculum and timetable for these courses). It should be remembered that young men must undertake 15 months of National Service usually after qualification as a skilled worker. Some of this service may count as practical experience if the trade is being practised.

INDUSTRIEMEISTER

28 Almost all young men and women who leave full-time employment to take courses for Meister examinations take the exams of the Handwerkmeister. The bulk who study for them part-time at their own expense will also take the examinations of the Handwerkskammer, The reasons are :

a. Industrie has a high regard for the Handwerkmeister

b. The Handwerk qualification carries the extra right to set up their own business

29 Nevertheless the large firms have not been entirely satisfied with the Handwerkmeister. Through the DIHT they have, during the last six years, established the separate and distinct syllabuses for a qualification of Industriemeister examined by the local Industrie- und Handelskammern. These now exist for seventeen industrial areas and, where there is a comparable Handwerkmeister the syllabuses are quite similar except that each of the Industriemeister has a distinct syllabus in 'middle-management' rather than 'running a business' (see also paragraph 26 d and Appendix D). The syllabuses are proving popular with employers who, over the last five or six years have considerably expanded their participation largely through courses offered by local Chambers. This has led to a significant decline in the numbers who by virtue of the quality of

the work they undertake, or by virtue of their supervisory position, can be regarded as 'Meister'. These are known generally as 'Industriemeister or 'Betriebsmeister' or 'Werksmeister' (Firms-Meister), two terms which may be used by Handwerksmeister more in contempt than description. It is estimated that Industrie currently employs 230,120 qualified Meister (of whom about 146,340 are Handwerksmeister) and a further 223,440 whose work or supervisory position might define them as Betriebsmeister or Werksmeister.[16] It is now clear that the success of the Industriemeister courses will make it harder to join the latter two categories except in medium size firms.

THE DEVELOPMENT OF MEISTER TRAINING

30 The Meister is registered as having qualified with an appropriate Chamber - of Industry and Commerce or of Craft. The distinction between Industriemeister and Handwerksmeister is not always easy to discern in the technical theory parts of the syllabus, particularly in the Metal Trades. The 'economic and legal' part of the syllabus is different and the emphasis on practical craft skills is also different, deriving from different loyalties and traditions in the two main systems of Chambers. These traditions emerge in the teaching, based in different institutions.

31 It became very clear that living tradition is very highly regarded as a source of credibility amongst users of the system in the FRG at all levels. The following is an English paraphrase of a very carefully worded statement in German made to the visiting party at the DIHT :

> *In Germany, we do not introduce schemes of education or training from the drawing board on the basis of a 'green fields' approach. Each of our schemes is based on traditional principles - taking account of one's place in industry, of industry's place within the community and of the skills which industry actually needs to operate efficiently. It is for this reason that industry accepts the responsibility for training which it does. Only industry can afford the latest equipment, because such equipment must pay for itself; only industry can discern, often at a company level, the extent of new skills needed or identify the staff which needs them. At national level, the general provision will always lag a little behind the industrial pioneers in training although the basis for new theory can often be laid in schools. In practical terms, however, industry must take the lead. This is only right because industry must take responsibility for itself and its competitiveness.*

32 The function of the Meister is part of that tradition in four ways :

a. it is known throughout Western Europe as one of the; ranks of apprentice, journeyman, master; it occurs in British apprenticeship deeds;

b. it is one of first-line management which depends on an intimate knowledge of shop floor routine and skills to meet the production targets established by marketeers or the technical demands made by designers;

c. it is clearly distinct from that of technician (concerned with the interpretation of technical and design problems in a specification) although a common training up to skilled worker status helps communication between the technician, the Meister and the worker;

d. it includes the responsibility for passing on the skills of the occupation to new recruits and for noticing the needs of new technology.

33 The British visitor is very conscious of the great discontinuity in German history in the aftermath of war and of the rebuilding of the country and its economy. There is the consciousness of the massive devaluation of the currency, and of the heavy property tax, and of the radical reorganisation of industry and industrial structures. There is equally the consciousness of the integration in the West German territory of refugees from the East. There is admiration for the subsequent 'economic miracle' and there is the temptation to look to the industrial training structures for part of the 'magic answer'. The German host is at pains to emphasize the reliance on traditional principles, the continuity which such reliance allowed and the credibility stemming from it.[17]

THE POLITICAL IMPORTANCE OF THE MEISTER

34 The political importance of the Meister lies in the traditional role of apprentice master. Without him, the famous Dual System of education and training is put under some strain, because industry could not so easily meet its jealously guarded responsibilities for the training element. It is true that legally a skilled worker with a Training Aptitude Certificate can carry out the training function, but such workers have the obvious ambition to complete the qualifications for Meister status.

35 Failure on the part of industry to meet its self-imposed responsibilities would lead to an increase in the need to provide places in schools for the untrained youth. That would increase the influence of the states against that of industry in the post-school provision of education and training and lead to powerful criticism from the unions.

36 At the same time, Federal-wide agreement on regulations for achieving Meister status in an occupation leads to an inclusion in Federal law. This can lead to all kinds of difficulty in renegotiation to meet changes in technology or industrial needs - basically because of the need to find time for changes in the law and to take account of the kind of collective bargaining which is part of any new or revised agreement.

37 The Meister is thus at the centre of the Bund/Länder, Chambers/Schools, Employer/Trade Union discussions and this illustrates his political and social importance as well as his integrating role in industry. It is a strange system in German eyes which adopts its distinction between education and training, which insists on the value of industry/employer led training, which seeks workplace experience for its youth, and then ignores the needs of the one rank which can do most to ensure its success and divorces ab initio the training of its technicians from the skilled worker from whom first line management ought to be recruited.

DISCUSSION ON MATTERS RELATING TO THE MEISTER

38 In spite of economic and demographic pressures, the long-established Meister/apprentice system remains virtually intact. The economic problems of continuing to provide apprentice training in the situation of recession have coincided with increased demand from young people, since the birth rate trends over the last two decades have been similar to those in Britain with a peak in the mid-1960s 15 year-olds represent the main group entering the 'Dual System' and the total actual and estimated number (in thousands) of this group in the Federal Republic vary as shown in the following table :

Year	1955	'60	'65	'70	'76	'79	'85	'90	1995
Number of 15 year-olds in thousands	953	541	796	809	968	1048	779	610	629

While it has been difficult to provide all the apprenticeships required, this has more or less been achieved, with the proviso that young people must be prepared to move away from their home district to firms elsewhere where places are available. To a small extent, there are unfilled places in some areas and unplaced young people in others. The apprentice places are financed directly by industry, although there are some group training schemes for smaller firms with financial assistance for capital from the 'Bundesanstalt für Arbeit' - BFA - (Federal Labour Office).

39 At the higher levels of training (for Meister, Industrie-meister, Techniker, etc.), there are two factors which are having, or may have a significant effect on patterns of education. Quite large proportions have in the past prepared for the higher qualifications through full-time study. Firms were prepared to hold jobs open for their trainees for the one or two years duration of their courses. However, it is now rare for there to be such expectations, and the students must break their ties with firms in order to study full-time. With jobs becoming more difficult to find, there is a dis-incentive to chance leaving positions, leading to a trend towards evening study. An Act passed in 1969 gave employees a right to study full-time with a grant from the BFA equivalent to 90% of the person's wage or salary. This grant was later reduced to 80% and later again to 58%. Then a further Act of December 1981 replaced the grant system by one of interest-free loans.

40 The finance for dispensation by the BFA for its different activities is provided by deductions from employees' salaries (raised in January 1983 from 2.0% to 2.3% of the salary) with an equal contribution from employers.

41 There is thus a fluid situation in Meister and similar level training, and it may be of interest to relate the substance of a discussion in March 1983 with a group of 25 students following a one-year Meister course at a college in Mannheim. Many of the students came from other areas of Germany, and many were awaiting the result of their loan applications. The course was over-subscribed and places had been allocated on a 'first-come, first-served' basis. All students had given up their jobs, although three felt they had prospects of rejoining their firms with jobs corresponding to their Meister status while a few others considered that they would be able to return in a skilled worker (Facharbeiter) role. The lecturer thought that perhaps 15, on qualifying, would be able to obtain a Meister status job immediately and the other 10 over a two-year period. It was estimated that comparative salaries were DM2500-3000 per month as Facharbeiter and DM3500 per month as Meister. Three students expected to go into business on their own account eventually.

TECHNIKER

42 Entry to Techniker (Technician) training is open only to those who have completed apprenticeships in appropriate trades, followed by at least two years' relevant experience. Since December 1981 students receive loans rather than grants, and have to give up their jobs without any guarantee of employment with the same firm. It follows that only those with very strong motivation undertake technician training. The prime motivation is to improve promotion prospects and employment opportunities. (See also paragraphs 39-41) The provision of syllabuses, courses and examinations has been by individual Länder and was part of the general educational expansion from 1966 onwards. They are in that sense a recent addition to the system. The development of curricula and their content has been commented on in an earlier report.[18] This report looks at practice in schools.

VISITS TO TECHNIKERSCHULEN

43 The group visited Gewerbliche Schule West (Essen), a Fachschule for Metall Technik, specialising in Mechanical and Production Engineering leading to the Staatlich Geprüfter Techniker (state certified technician). The site was shared with another Fachschule, für Electrotechnik. The technician course was two-years' full-time; the nearest part-time provision (four years) was at Duisburg. The syllabus was fairly traditional, involving basic principles in Year 1 and applied subjects in Year 2. It included the opportunity for students to study additional material for the Fachhochschulreife, qualifying them for entry into a Fachhochschule (Polytechnic). The syllabus appeared to be that developed by the KMK. The KMK curricula were intended to be 'dynamic', but the school

commented that the long-planned revision had not happened, and there are clearly difficulties in achieving syllabus revision at national level. However, the school has managed to obtain local agreement to the introduction of some work on numerically-controlled (NC) machines. No updating courses were offered by the school. The school was some 20 years old, and the overall impression was of a school with limited equipment implementing a fairly static syllabus in a generally traditional fashion.

44 The group also visited Carl-Benz-Schule (Mannheim), a large campus embracing Berufsschule, Meisterschule, Technikerschule Technisches Gymnasium and other schools. The building was some five years old and well equipped, and the general atmosphere was markedly different from the school at Essen. Syllabus content was similar, but revised curricula for next year will include data processing and NC machines. Technician courses are full-time; a part-time course is available, but it has not run for four years since it did not proove possible to recruit the minimum number of 20 students required to run. The withdrawal of grants and introduction of loans was reported as having an effect, and it was likely that the part-time courses would be offered next session. The impression gained was that of a lively and thriving establishment.

45 In discussions both the origins, validation and examination of syllabuses for career development were clearly seen as issues of some importance. The Meister syllabuses (both Handwerk and Industrie) were designed and approved at Federal level and examined by the Kammer. Employers and Trade Unions felt they had adequate contact with and influence over these, for Handwerksmeister through the committees established by Government agencies and for Industriemeister at DIHT. These pressure groups expressed satisfaction with the situation. The Techniker syllabuses, designed by individual Länder, while subject only to a weaker guidance at Federal level, were seen by these pressure groups as less satisfactory to employers and industry and slower to change. On the visit to the Bundesinstitut für Berufsbildung - BIBB - (Federal Institute of Vocational Education) it was commented that employers were not interested in further training unless it was essential to the business and three-quarters of the training in the new technologies took place in firms. The offices of the Kultusministerium of Baden-Württemberg had sent out questionnaires to firms seeking their views on Fachschulen after eight years' operation. The second (specialist) year was generally considered satisfactory, but industry was critical of the results achieved in the first year, devoted to mathematics, science, literacy and personal development. They felt that improvements were essential to prepare technicians for middle management appointments, and the time devoted to mathematics, science and English and German will be increased, possibly at the expense of specialist subjects.

46 It was noted that generally, partly as a result of the recession and partly as a result of the loan policy, full-time students on technical courses were falling in numbers. It was

noted, for example, that the current figure of 7750 was expected to fall to 6000 or less in Baden-Württemberg.

COMPARISON WITH THE UK

47 Technician courses in the UK have more traditionally been part-time, although the number of full-time courses has been increasing rapidly due to the unemployment situation. They are also ab-initio, and thus the average age of a technician at qualification in FRG is 25-27, some five years older than in the UK. A comparison of technicians in the two countries would only be relevant at comparable ages, eg. at 30, by which time the UK technician would have amassed experience to match that of his counterpart in FRG. The UK technician will in most cases not have undergone craft training like his counterpart in FRG, but in the majority of cases it could be argued that such training is not necessary.

OTHER COURSES

48 The taking of a Training Aptitude Certificate is not usually regarded as a significant career step in the FRG. Clearly though, as the Chambers become more insistent on the presence of a trainer while apprentices are on productive work, this differentiation from the ordinary skilled workers will become of more significance.[19]

49 It should be remembered that Industrie- und Handelskammer also administer the exams for the qualification of a few specialist Meister, such as Master-Cook, Master-Florist. These are in origin, character and syllabus much more like Handwerkmeister than the Industriemeister..

PARTICIPATION IN COURSES FOR QUALIFICATION

50 The number of students taking Meister qualifications over recent years is as follows :[20]

	1979	1980	1981	1982
Handwerksmeister	32941	35658	37272	39434
of which 'Metall' trades		20964	21890	23075
Industriemeister	3569	4489	5232	6531
of which Industriemeister (Metall)	2663	2879	3020	3807

It has been explained earlier (see paragraph 18) that statistics for Techniker qualifications are not easily available for the FRG. It is estimated there are, for technical trades in general, about 20,000 a year.

MOTIVATION

51 In the surveys referred to earlier (see paragraph 19) it is estimated that about 15% took part in some sort of work-related course in 1979 as follows :

21

To get a job in another trade	1%
To gain advanced status in one's own trade (eg. to become a Meister, Industriemeister Techniker or expert in business administration	3%
As induction to a new type of work	5%
Other courses/seminars relating to participants' own occupation	10%
Total (some participants taking part in more than one category)	15%

It is in this area that courses for industrial changes take place.

'ADAPTATION' PROVISION IN FRG

52 As defined in the Vocational Training Act, advanced vocational training refers to all the measures that enable a trainee to maintain or extend his vocational knowledge and abilities, prepare himself for *promotion* in his chosen occupation or *adapt* himself to technical developments within his company or industrial sector. Vocational training for *promotion* refers primarily to the routes which lead to the standardised qualifications of Meister, Industriemeister and Techniker (and their commercial equivalents). Vocational training for *adaptation* embraces the wide and diverse range of post-experience short courses, seminars and conferences, normally of a non-certificate nature, provided by industry, the Kammer, the trade unions, churches, Volkshochschulen, private organisations and others on a continuing basis. There can be no doubt about the nature and depth of commitment to training at all levels of industry in the FRG.

53 The conviction is strongly held that training represents an essential investment in human capital and that the benefits to the company accruing from this investment extend far beyond next year's balance sheet. Training is viewed therefore as a key factor in reconciling the legitimate aspirations of the individual in a pluralist society with the economic imperative of raising the skills base line of industry and commerce to operate successfully in an environment characterised by fast changing technology and new work methods.

54 'Adaptation' training is industry-led and for many large companies completely industry-based. The vast majority of post-experience short courses and seminars are arranged either

by large companies for their own employees or on demand by the Kammer for the employees of small and medium-sized companies registered with them. A recent survey by the BFA established that more than half of all vocational further training (ie. for promotion and adaptation) was carried out by employers on an in-plant or interplant basis. Almost all enterprises with more than 500 employees are running their own further training programmes or sending their staff at company expense to courses of a nonplant nature. Major companies point out in their social reports that they spend more than 3% of the salaries bill on further training. In many large companies, as many as one employee in three will have taken part in adaptation training in the course of a year.

55 Very little 'adaptation' training is conducted in the public education system (see paragraph 47) which is seen by many industrialists as better suited to the provision of theoretical education, in particular on a full-time basis. Post-experience short courses must be up-to-date and practical in respect of content, method and presentation and in many cases be company or sector specific. It is felt, therefore, that these courses are best conducted by practitioners and specialists drawn from industry and commerce who have not only the relevant technical background but also experience in dealing with the learning needs of adults at work. Many of these contributors will be personnel who have a Training Aptitude Certificate or a post experience qualification which includes an element of 'pedagogy'.

56 It is also true that the formal codes under which the schools operate, together with a general feeling that the state ought not to subsidise the needs of firms, leads to a situation whereby the Vocational Schools in general and the Fachschulen in particular do not offer ranges of short courses. In addition, many of the course providers 'buy-in' contributors to their courses from the public sector as required. The number of staff involved in full-time training is often small in companies with large in-plant programmes. The role of such staff is not primarily to teach but to design and supervise the programme. The 'training manager' is often a senior member of line management who is spending a period of time in the training function, as he will in many others, as part of a general management career. It is also reported that in many Fachschulen the teachers form independent organisations that provide such short courses as they see useful, using themselves as teachers (see also paragraph 109).

57 The quality and range of 'adaptation' courses varies from region to region and indeed from company to company. There is a marked contrast in provision between areas where traditional industries are in decline and unemployment is growing with areas such as Bayern and Baden-Württemberg where 'sunrise' and high technology companies abound. There are contrasts too in the response of individual Kammern to the needs of their members. Some are entrepreneurial and pro-active in seeking out and providing for the needs of their members - especially the smaller companies - while others see their task as reacting to the self-identified needs of their member companies. The

DIHT has been active in developing teaching packs and a range of standard seminars which can incorporate such 'building blocks' for use by individual Kammer.

58 The costs of most 'adaptation' training courses are met in full by companies on behalf of their employees whether these are courses provided by themselves, the Kammer or others and irrespective of whether undertaken by the employee inhis own or company time. In certain circumstances, the BFA (Federal Employment Institute) will meet the costs of course fees for employees (and the unemployed) who choose to take up such opportunities; alternatively, the BFA may provide funds to an organisation to arrange 'adaptation' training where a specific requirement exists, eg. impending redundancy.

59 The Volkshochschulen (Adult Education Centres) are the main providers of further education programmes. They were set up by local authorities after 1945 to offer further education facilities to interested members of the general public. A small range of 'adaptation' courses is often available (eg. Microprocessor Techniques, Data Processing, CNC Upgrading) but this provision is limited by the physical and technical resources available. The major provision of the Volkshochschulen is in the field of foreign languages (30%) closely followed by the creative crafts (20%), gymnastics and yoga (15%) administrative and secretarial subjects (8%), sewing and cooking (7%). The remaining 20% includes classes in politics, philosophy, natural sciences and preparatory courses for school certificates. The balance of such courses between vocational further education and general education varies from institution to institution. Over two-thirds of the participants are women and 75% of the courses take place in the evening. Although most of the running costs are met by the Land, almost half of these institutions are run by registered associations and therefore in law are private institutions.

60 The curriculum content of adaptation training is wide. It ranges from specific training in particular operational techniques to behavioural skills for managers. In many company schemes, emphasis is placed on interpersonal skills, problem-solving abilities, transactional analysis and stress training for management personnel. The target for many of these programmes is currently white collar employees but a growing number of forward-looking organisations plan to transfer the main thrust to blue-collar staff. Adaptation training is a source of curriculum innovation in respect of both content and method because it often feeds into the certificated, promotion courses, particularly the part-time programme which is operated often by the same company or Kammer with highly beneficial results.

61 The conclusions of the group are reported in Section VI.

III BUSINESS AND ADMINISTRATION GROUP REPORT

INTRODUCTION

62 In the area of business and commercial employment the nature of change is rapid, with the introduction of new technology in the areas of the electronic office and information processing. Great emphasis is placed upon the need for flexibility and speed of response in meeting the changing needs of individual firms as they face up to the challenge of new technologies, in addition to the general need to provide a more planned approach to training which helps individuals advance their careers. This philosophy of training for twin needs, adaptations to change and career progression, is reflected in the insitutional framework and within the dynamics through which further training is provided. To understand further training fully there are a number of features of the total approach to vocational training which need to be stated :

a. *Further* vocational training builds upon the foundations laid down by the Dual System.

b. The role of employers in the design, provision and control of *further* vocational training is more substantial in the FRG than in the UK.

c. The role of the Federal Authorities is perceived as allowing the forces of a free market economy to predominate.

FURTHER TRAINING AND THE DUAL SYSTEM

63 Unlike the United Kingdom the FRG has had a pattern of apprenticeships in the commercial areas. Young people typically take two or three-year training contracts where they receive in-firm training and day-release for appropriate further education. These apprenticeships are, like others in the FRG, to nationally determined regulations and include a variety of defined trades. They include office assistant, office clerk, general clerk, lawyer's clerk, clerk in taxation and finance, doctor's receptionist, bank clerk, clerk in wholesale and export, sales assistant, sales clerk, chemist clerk and so on. Competition for such apprenticeships is fierce even though the system is still expanding and many large companies, such as banks, can restrict their selection to those who are qualified for University entrance (Abiturienten). Some enter at 15, but many, particularly the better qualified entering at 16 or 19 expect to use their apprenticeship as a career base.

ROLE OF EMPLOYERS IN DESIGN

64 The heavy involvement of employers in the design of some of the courses suitable for career development enhances the relevance of training to employers' needs and facilitates the acceptance of qualifications as being representative of future job needs and performance. Industry-led initiatives (via the Chambers and through the Deutscher Industrie- und Handelstag - (German Federation of Chambers of Industry and Commerce) challenge strongly the further education provision organised on a full-time study basis, only as a route to senior positions in industry and commerce for such jobs as accountant.

65 The government, employers and trade unionists act through the Bundesanstalt für Arbeit - BFA - (Federal Labour Office) to provide opportunities, within the 1981 Act for further training and retraining. Individuals are expected to better their prospects by taking advantage of these opportunities. The concern at Federal level over the quality of provision is with the acceptability of qualifications between Länder.

DEVELOPMENTS

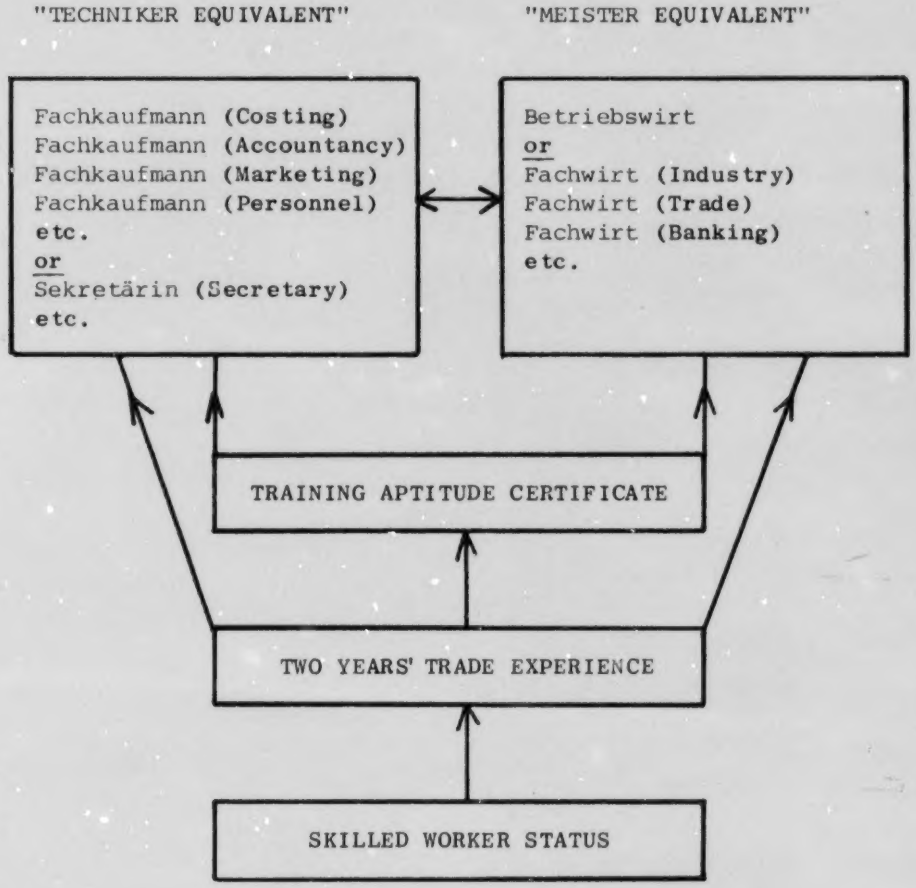
66 Many developments in Berufliche Weiterbildung (Further Vocational Education) for Business Studies are relatively recent - within the last ten years. Very few regulations for Business Studies have emerged from the Federal Authorities compared with those for technical trades. Employers (through the DIHT) have tended to resist attempts at Federal intervention preferring to develop their own courses and to liaise with individual Länder on provision. Recently the Bundesinstitut für Berufsbildung - BIBB - (Federal Institute for Vocational Training) developed a plan for commercial training which was rejected by both Trade Unions and employers. The Chambers of Industry and Commerce adopt a promotional attitude to Weiterbildung. This is seen by the Chambers as a natural progression from their responsibilities in initial training. The DIHT's role is to encourage employers to initiate courses of further education and then to refine the content and devise regulations for examinations. There is a strongly held view within the DIHT that further training should be flexible. There is a fear that excessive government involvement will lead to bureaucracy and thus inflexibility.

AIMS AND SCOPE OF FURTHER VOCATIONAL EDUCATION IN FRG

67 The aim of further vocational training in the FRG within the Business Studies area is consistent with that for other areas of industry and commerce; namely to provide individuals with opportunities for advancing, deepening and constantly updating their knowledge and skills. This is seen as essential to the growth of the economy, providing industry and commerce with employees who are highly skilled, well motivated and adaptable to the changing needs of the business world. Further training in the FRG is the resumption of systematically organised learning on completion of the initial training described above and after embarking on professional activities for a number of

years. This may take place in-plant, especially for employees in large organisations, but is more likely to occur in schools (Fachschulen, Volkshochschulen) providing further training programmes. Eligibility for further training of administrative employees, in common with most other employees, is the completion of initial training followed by three or four years of practical experience.

68 The general pattern of the courses has developed and is shown in the following diagram :



69 Although this diagram helps relate the pattern of courses to the models provided in manufacturing industry it does not help to describe the deeply differing approaches within the area of further vocational training. When representatives of almost any educational or training organisation in the FRG are asked about overall structures, there is a tendency for them to fall back on the Dual System as the very heart of what they wish to describe. Nevertheless for post-experience career development there is almost as much commitment to the opposite position of *separate* provision. Separation between Land and industry provision is regarded as the source of flexibility, accordingly providing both for the need for forward planning by industry and the desire for freedom on the part of the individual. That is, the Land provides a separate career development

opportunity for individuals through the Fachschule, where the individual who wishes for upward career mobility can leave his firm and take a two-year full-time course for technician and business technical equivalent qualifications. In-firm training, provided by industry, or equivalent qualifications to those of the Fachschule, provided part-time but examined by the Chambers of Industry and Commerce, are much more specifically geared to industrial and commercial needs than to the requirements for mobility of the individual. This complementarity is the polar opposite to the justification for the Dual System, where, to some extent, the freedom of the individual is contained within the need for positive achievements at craft level, that is, status in society, skilled manpower and an agreed structure to achieve them.

70 In more descriptive terms then:

a. Betriebswirt (General Administrator) is a Land-determined, Land-examined syllabus studied for full- or part-time in a Land-organised Fachschulen.

b. Fachwirt (Business Manager) is a Chamber-determined, Chamber-examined syllabus studied for in Volkhochschulen, Chamber run or private courses.

c. Fachkaufmann (Functional Specialist) is as for b. above.

d. Sekretärin (Secretary) may be either as for a. above or as for b. above.

THE STUDENTS IN THE FACHSCHULE

71 The regulations for entry to a course leading to the 'Staatlich Geprüfter Betriebswirt', state-recognised business administrator, provide that:

a. For entry to the Fachschule the following are required

i. The Fachschulreife, the qualifying certificate for entry to Fachschule, (or the Realschulabschluß the Realschule leaving certificate)[22] or a certificate allowing entry to the eleventh year class (in a Gymnasium) or proof of an equivalent standard of education

and

ii. The leaving certificate of a Berufsschule or proof of an equivalent standard of education

and

iii. The certificate showing completion of training in a commercial occupation with at least a further two years commercial experience

or

iv. Commercial experience of at least seven years and a certificate under Section 40.2 of the Vocational Training Act 1969.

b. Those who have completed the Commercial Berufskolleg II complying with the entry regulations, with proof of a qualifying test following at least three years' commercial experience, will be admitted.

c. In special cases admission will be allowed direct to the Fachstufe (the Second Stage) following an entry test.

72 The visiting party saw a typical example of a two-year full-time course of study in the one seen at the Eberhard-Gothein-Schule in Mannheim leading to a Betriebswirtschaft qualification. The course content and allocation of teaching hours is given in Appendix E.

73 The whole of the first year curriculum consists of compulsory studies involving comparatively high, by UK standards, class contact hours and 11 separate study areas. Discussion with staff and students revealed that little attempt is consciously made to integrate subject content across the course as a whole or to synchronise the teaching of individual topics.

74 In the second year, alongside the continuation of core studies, in language, mathematics/statistics and social studies, the students are required to choose one main study area from a range of business functional areas and to complement this by undertaking two minor studies from other functional areas. Thus the students are required to undertake broad complementary functional area studies alongside an in-depth study in one functional area. Strangely, given the rapidly changing nature of administrative employment in industry and commerce, the students are forced early in the first year to choose their second year optional studies.

75 The teaching year is normally 32/33 weeks and classroom tuition arranged in 45 minute periods. For the students who wish to progress from Fachschule to Fachhochschule a further study period of 3¾ hours per week for two years has to be undertaken in mathematics and physics. In the case of the school visited the majority of the students expressed an interest in progressing to Fachhochschule and thus were following a programme of at least 26 hours of direct class contact study each week. The students who had chosen to follow this full-time study route had given up full-time employment without, in the overwhelming majority of cases, a guarantee of being able to return to their former employment.

76 Thus in the Mannheim Fachschule visited a total of 540 hours of part-time study are involved with students usually attending for two evenings a week (2½ hours per evening), though the students who wish to accelerate the study programme may attend for four or five evenings. Many of these courses are designated as qualifying under the regulations of the BFA for course-fee payment within the regulations arising from the Arbeitsforderungsgesetz - AFG - (Work Promotion Act).

STUDENTS' OPINIONS ON PROVISION IN FACHSCHULEN

77 The visiting party regarded the giving up of an established position to attend a course in a Fachschule with a view to re-entering employment at a promoted level as a risky proposition in a time of increasing unemployment. This view was confirmed by several people. It was, therefore, thought important to find out from students why they were attracted to such a course and what their views of it were. The views expressed by students on a Business Administration course at Eberhard-Gothein Schule, Mannheim, could be summarised as follows:

a. First Year Betriebswirt

The course was found to be appropriate and enjoyable, probably because some of the students had recently escaped what they described as the frustration of their previous job, often cited as a reason for attending the course. Others had come to the school after completing their military service or after an hiatus in their careers caused, perhaps, by marriage or having a family. The investment was thought to be a good one, particularly in view of inflation reducing the amount in real terms. It should be added that many young men, after completing their apprenticeship, sign up for five years voluntary military service. They then receive a grant for further training at the end of service (as part of their contract) to ease their return to civilian life. It was reported to the group in Baden-Württemberg that the shift from grants to loans had brought a marked shift from full-time to part-time study.

b. Second Year Betriebswirt

Opinions were less favourable. This course was too demanding in terms of periods taught - 29 per week. Such a commitment of time to teaching left students with too little time for homework, private study, research, reflection, and little opportunity for inter-action between students. The course would have been better had there been more attempt to apply theory to practical situations, simulated or real.

THE CLIENTS

78 As has been said, the students have had a basic training in a commercial occupation and have had several years' experience after the completion of their training period. They are perhaps motivated by the wish to further their careers by promotion to a supervisory post or to one requiring a greater degree of specialist knowledge, or by the need to up-date themselves in new technologies, techniques, practices or knowledge. It may be that economic factors indicate a need for an element of retraining. A powerful motivator for career development is the fact that they are often in competition for senior positions with a range of people who enter these fields of employment via full-time higher education. The need both for updating and further qualifications should be seen against this background.[23]

STUDENT SUPPORT

79 Federal law and regulations mean that every German national has a right to paid leave (90% of former income) for up to two years, provided that he/she has worked and paid unemployment insurance for a qualifying period, for the purpose of vocational Weiterbildung. Students at present attending Fachschulen are supported thus but a new scheme is being implemented whereby loans will take the place of grants, the loans being repaid over 10 years. Applicants for funding must intend to enter or continue an employment for which contributions to the BFA are paid; he/she must be judged suitable for the course and capable of attaining promotion on its completion; and there must be opportunities available for promotion, having regard to the state of the labour market.

80 Under the grant scheme, the BFA has borne part of all the necessary expenses, depending upon the individual's requirements and circumstances. In particular, subsistence allowance has been paid to participats in full-time training courses if certain conditions are met. It amounts to 80% of the earned income, reduced by statutory wage deductions, where training was deemed necessary, for example, to enable an unemployed person to re-enter employment or to someone whose job is threatened. Where the training was deemed desirable but not essential the subsistence allowance has been 58%. The BFA also bears part or all of the cost of fees, learning aids, travel expenses, cost of working clothes, health, pension and accident insurance. Where appropriate the cost of accommodation and extra living expenses have also been paid.

THE TEACHERS

81 Most of the full-time teachers are university graduates who have qualified as teachers or are in the course of their two-year period of practical teaching leading to the second stage examination for qualified-teacher status. A relatively small number of part-time teachers, with varied backgrounds and qualifications, are used. Some of the full-time teachers have practical business experience but they are comparatively few and such experience is fortuitous rather than a qualification for appointment. The lack of such experience is seen as a disadvantage by some students, most of whom have to have six years' experience in order to be admitted.

82 The teachers are well-qualified for their jobs but it must be said that there would have to be a high degree of staff development to adapt courses to meet some of the expressed wishes of students and to improve courses to avoid, or at least diminish, the criticisms made by the chambers and employers and, let it be said, by the visiting party -

a. Staff should have business experience.

b. Staff should have wider knowledge of business subjects outside their own disciplines.

c. Staff should be encouraged to keep up-to-date and be given the opportunity to learn new knowledge and techniques. An attempt is made to do this by means of in-service courses but the visiting party was not in a position to evaluate it.

d. More co-ordination of teaching and learning following the realisation that commercial decisions involve the use of knowledge, information and techniques beyond the confines of one subject.

e. A mechanism is required for greater co-operation between business and education which would make the teaching less theoretical. The introduction of advisory committees would be beneficial.

f. More practical work is required, especially in fields where disciplines could be inter-related.

g. Students should be left to work more on their own initiative.

83 The views of the employers in industry and commerce on the education service are clear and expressed in a variety of documents.[24] They were expressed to the visiting party in a number of interviews. A general paraphrase may be as follows:

> *"Further vocational training is an independent sector of the education system with its own special aims, target groups and standards, and to which concepts and regulations obtaining in other areas of education cannot readily be applied. Concepts from other spheres, such as general education, will not meet the specific requirements of further vocational education."*

84 The Chambers have not been entirely happy with the rather general offerings of the Länder. They have, through the DIHT, encouraged and monitored developments in large firms and individual Chambers and have refined the experiences into three main patterns of provision:

a. The Fachwirt range of courses providing a general administrator course specific to a broad industrial group: banking, insurance, manufacturing, transport, etc.

b. The Fachkaufmann range of courses providing a course suitable for a functional specialist in any large firm: accounting technician, costing, buying, marketing, personnel, etc.

c. Sekretärin - as a simple alternative to the Land provision.

The DIHT acted upon initiatives which arose within firms. The Industriefachwirt, for example, was pioneered by Siemens, A.G. The insurance industry developed the concept of Handelsfachwirt. These initiatives were consolidated by the DIHT in consultation with representatives from the

Federation of Trades Unions (DGB) and the Clerical Trades Union (DAG) together with relevant professional groups.

85 Syllabuses vary a good deal. An example of a Fachwirt syllabus is given in Appendix F . Course provision can take place in a variety of agencies. The courses for Fachwirt are divided into a basic and upper grade, the basic being 260 teaching hours and the upper grade 248 teaching hours. Entry requirements are the successful completion of a recognised commercial training apprenticeship together with three further years of occupational experience in the branch of industry/courses the student wishes to study.

STUDENTS IN VOLKSHOCHSCHULE

86 Students wishing to study part-time in a Volkshochschule (Adult Education Institute) must have had a qualifying period of experience in a commercial occupation, the length of which depends on whether a course of basic vocational training has been completed. For example, students wishing to qualify as a Handelswirt must have completed a basic vocational training course and have had at least two years work experience in a Handelsbetrieb (Commercial Company). Alternatively, if they entered commercial employment by other routes.[25] they must have had at least four years' work-experience.

87 Volkshochschulen are staffed by full- and part-time staff with a variety of qualifications and experience. The Volkshochschule visited in Mannheim had about 50 full-time and 500 part-time staff teaching about 45,000 students per year. Either category of staff may teach Weiterbildung students who are studying part-time for chamber-set examinations but the probability is that the staff concerned are employed full-time in industry, commerce and the professions in the fields appropriate to the courses - Handelsfachwirt, Betriebswirtschaftslehre, Volkswirtschaftslehre, Rechtslehre, Sekretärin, etc. The Volkshochschule claimed to have strong links with industry, partly through its part-time staff, and offered courses which reflected the needs of industry, from updating (Data-Processing and Micro-Processors were cited as examples) to retraining. The Schule was particularly useful in these fields to small and medium sized companies in Mannheim which do not have facilities for further training. Staff in the Volkshochschule try to follow-up students a year after their courses for the purpose of course appraisal. With about 10,000 vocational students a year, this seems an awesome task.

IN-FIRM TRAINING

88 A considerable amount of the post-experience, further training and retraining of administrators, by one estimate as much as two-thirds, is undertaken by the firms themselves. The bulk of this training is provided through in-plant courses of up to three months' duration with 30% of the courses lasting between one and four weeks. Such courses are particularly prominent in banking and retailing. In the banking

sector one week seminars are held in hotels or training centres and cover a range of topics of a specialist banking nature, on management techniques and behavioural trends in banking. One third of all banking employees attend a one-week course each year and in addition many attend other short courses as well. For employees aspiring to Fachwirt and Fachkaufmann qualifications, courses are provided by the banking academies at Mannheim, Munich and Stuttgart and the banks will grant employees secondment on full pay.

89 A similar range of provision is available within large retail organisations to enable employees to progress to supervisor and manager status. Interestingly a number of large retail organisations provide inter-plant, further vocational training opportunities for employees in small or medium sized businesses where the financial position of the small firms are not sufficient to provide training facilities. Similar opportunities for the further training and retraining of employees in smaller businesses are provided through training centres set up by local chambers. These centres are often subsidised by grants from the Federal Government and the Länder.

90 In some manufacturing organisations, e.g. BBC, the further training of employees is undertaken almost entirely in-house. Such arrangements frequently involve close collaboration between a manufacturer and a local Volkshochschule which will arrange for appropriately qualified and experienced staff to undertake the in-house tuition. Examples of short courses currently on offer include sales and distribution techniques, transaction analysis, commercial practices, inter-personal skills and stress management. One week seminars are held fairly regularly for workers at all administrative levels reflecting identified company needs. These include problem-solving, decision-making, value analysis, lateral thinking and structured thinking.

91 The planning and subsequent funding of further vocational staff education and training on the part of private sector organisations, large and small, is a most striking feature of post experience vocational education of administrators in the FRG. All the organisations which the visiting party met placed great emphasis on the need to improve the job functioning of their administrative staff, their ability to cope with the dynamically changing business environment and the constant need to provide career challenges and promotional prospects. The involvement of the Federal Government and of Länder in the process of the continuing short-term job-specific educational needs of employees is minimal.

92 Other provision of Weiterbildung is by employers via in-house training. Estimates were received that of the 50% share of all further training, organised by employers, 19% was in-house. These are primarily short courses which are aimed primarily at updating professional knowledge, new management techniques etc.[26]

93 The staff engaged in Weiterbildung in commerce and industry, whether 'on-the-job' in firms or off-the-job in Chambers, are normally specialist personnel with practical experience. They need to be capable of passing on their experience, knowledge and skills but there is no requirement that they should possess formal teaching qualifications. The number of staff involved in further training in an undertaking to a large extent depends on size, function and policy towards training. In Daimler-Benz at Mannheim about 10 staff are involved full-time in training, mainly engineers, sociologists and psychologists. These are supplemented by specialist staff from the company: they also engage outside specialists on a part-time basis. This pattern of provision is not untypical for a large industrial company.

94 An example of how a company in the financial sector provides further training is given by the Deutsche Bank which produces its own managers from its grass roots. Training is organised at regional training centres which are staffed by full-time staff, some on secondment from other departments of the Bank, and invited to give lectures and conduct seminars. Examples of their courses are Banking, Sales and Customer Regulations, Financial Techniques, Personnel Administration and Management The Bank also uses external agencies such as the Academy of Banking for Bankfachwirt and management courses, the Academy for Business Studies and Administration, and other professional institutes. Small and medium-sized companies often use group training. There are groups of specialists available, an example cited being the Federal Retail Trade Association. These companies also encourage their employees to attend courses run by the chambers of industry and commerce which are staffed by a variety of people with the relevant knowledge and experience - academics, practising professionals but mostly specialists in a particular aspect of business.

DATA PROCESSING

95 The group also visited a school which contains a Fachschulen equivalent in Boblingen in Baden-Württemberg: the Akademie für Datenverabeitung - ADV - (Academy for Data Processing).[27] The ADV was initially started on the private initiative of one individual and with a working capital of DM 5m from IBM. Now it has attracted funding from the Land. Its syllabuses are designed in co-operation with the Land who provide the validations for the examinations. It provides courses for entry for 19 year-old school leavers as well as a Land-equivalent of the Fachkaufmann of the DIHT, but in Data Processing. The school was well equipped with exciting syllabuses and teaching methods, but alas, stands unique and an exception to the many more traditional courses of the Länder. It provides a reminder of the stark divide between industry and the Länder (see also paragraph 69).

SHORT UP-DATING COURSES

96 Finally it should be added that, in addition to the in-house provision, and the provision in Volkshochschulen, there is a rich variety of short courses on offer. Employers may direct

their employees to courses run by trade associations or by the Chambers. Some Chamber-run short courses are more widely available. In addition there are courses run by churches, trade unions, professional bodies and private academies. It has been estimated that between 1980 and 1982, approximately one million people took some form of further vocational course outside the employer-Chamber system, while 900,000 took such a course inside that system.[28]

IV HOTEL AND CATERING GROUP REPORT

INTRODUCTION

97 Entry to the Hotel and Catering Industry has been largely through apprenticeships entered into at 15 or 16. These apprenticeships have been part of the normal Dual System. Until about four years ago there were four clearly defined separate apprenticeships which have, more recently, been changed and moved towards a closer integration. This new system, fully reported in Number Eight of this series of reports, has not yet produced any young people going on to career development education. The four routes still remain in essence as:

a. Cook
b. Waiter (now widened and called Restaurant Specialist)
c. Receptionist (now widened and called Hotel Specialist)
d. Clerical Assistant in Hotel Offices.

98 The first two of the trade areas listed in paragraph 97 (a. and b.) lead on to long-established Meister qualifications: Küchenmeister und Serviermeister. They do not have the legal significance of the Handwerkmeister discussed in paragraph 9 since the Hotel and Catering businesses are registered with the local 'Industrie- und Handelskammer'. In 1982 7,631 awards of Küchenmeister were made in the Federal Republic and 2,210 of Serviermeister. Courses leading to these qualifications are usually organised by the Kammern and are usually separate from the five Fachschulen for the Hotel Trades (but see paragraph 102 below). The Fachschulen provide Betriebswirt (Administrator) courses or similar courses. These courses are open to and available for those who enter the industry via all four of the career routes described in paragraph 97 above.

CAREER DEVELOPMENT

99 There is a long-standing tradition in the Hotel and Restaurant Trades in the FRG to encourage the young, recently qualified workers to broaden their experience by moving on to work elsewhere. This is quite strong with small paternalist employers and is reflected in the larger hotels and their chains. The Intercontinental Hotel chain reported that they kept the best of their young staff to move within their world-wide chains. Steigenberger, on the other hand, a German-based chain, encourages their apprentices to move to other hotels or countries but kept in touch with them and monitored their progress in the hope that the best would return.

THE FACHSCHULEN

100 After two to four years in industry, young people can apply to go to Fachschule for a full-time course which would result in a qualification for Middle or Higher Management. There are only five such Fachschulen in the Federal Republic of Germany in Dortmund, Berlin, Heidelberg, Hanover and Hamburg - one a technically private foundation but all in effect Land-funded.

101 At Heidelberg, two full-time courses ran:

Duration	Qualifications to attend	Qualification Aimed at
One year	Apprenticeship + 4 years in industry	Diplom in Gastronomie
Two years	Apprenticeship + 2 years Mittlere Reife	Betriebswirt

Students were chosen by application forms and references, not by interview. The amount of practical experience and the job location determined a priority for acceptance.

102 There was no practical element to any of the two year courses but the one year course at Heidelberg did have practical sessions built into the curriculum and most students also took Meister exams at the local Chamber (Rhein-Neckar at Mannheim). All the students had to give up their job to attend college and they had received loans from the Bundesanstalt für Arbeit - BFA - (Federal Labour Office) of up to 58% of their former salaries to attend. The loans have to be paid back, interest free, during the next 10 years. It was interesting to learn that none of the students had been sponsored by industry to attend. The loan system had been implemented through the BFA because it believed it was better to sponsor training with the limited money available, than to pay unemployment benefit. The students interviewed stated that they did not expect or want to continue in Advanced Further or Higher Education (although this route was open to them) as they could not easily receive a second loan and they were looking forward to a better position back in industry as a result of their study at Fachschule. Students on the one year course at Heidelberg wore uniforms from their previous jobs for practical sessions. Accommodation was very expensive and difficult to find due to tourism in the town and the fact that the University was also there.

103 The one year course was introduced in Heidelberg four years ago to meet a demand for Middle Management with Meister qualifications being possible at the end as well as the Land Diplom. The course had been well received by industry. Students on the two year course were finding job opportunities difficult and were therefore prepared to go back into industry at a fairly low level to start with. It was taking up to six months for each group to all find employment and up to ten years for most students to reach top management. Dortmund and the other colleges, on the other hand, offered only one year

courses leading to a Betriebswirt qualification. All these courses are determined by the individual Land which is responsible for the examination, although in practice the Fachschulen have considerable influence on this.

104 The staff were mainly Civil Servants (they had to be German Nationals to be Civil Servants), who were paid by the Land Government and therefore they had the benefit of a 75% non-contributary pension scheme. Very few of the staff were from industry and there appeared to be no career structure or staff development for them. Once a teacher is on the Ministry Staffing List, they appear to stay in that post until retirement. There did not appear to be any 'Sabbatical' opportunities for return to industry.

105 Equipment in most colleges is minimal. There was a computer at Dortmund for student use as well as for college records. At Heidelberg, we saw one practical/demonstration kitchen for the one year course. Text books, which had to be bought, were from an approved list recommended by the Land Ministerium. Other tests were not allowed to be used.

EXAMINATIONS

106 To avoid excess time being taken up with examinations, two subjects for examination were chosen by the Chamber for each final Meister examination. Students were continually assessed during the course and then told in which two areas they would be examined, six weeks before the examination. For the Land examinations they were largely set by interaction between the college and its individual college inspector.

OUTSIDE INFLUENCES

107 Local officers of the Chambers identify training needs and plan to supply appropriate labour. Training is seen by Chambers and the Land authorities as for the industry as a whole and not to meet the needs of single employers.

108 Unemployed youngsters are registered with the local office of the BFA (Federal Labour Office) and attempts are made to match them with firms willing to take on labour. A three-year apprenticeship contract is agreed (with no legal obligation to the protected employment afterwards). The Trade Unions allow the apprentices to be paid lower wages (which are linked to the year of apprenticeship-training and not to their age). It is recognised that any work is better experience than no work and employment can be sought in the industries after apprenticeship has been completed.

109 The influence of the Ministry of State for Education is that the state only intervenes when they identify a gap in the provision of short courses in the private sector. In general they provide no short courses in the Hotel Trades. This policy is for all to have an opportunity for Advanced Further Education. They have an awareness of what goes on in industry but no brief to interfere. It was reported that the staff of

Fachschulen form private trade associations outside the school to provide privately run and individually paid-for small seminars and short courses (see also paragraph 56).

110 The influence of Chambers is that they are statutory and each Chamber has a Vocational Training Division. The examining bodies of the Chambers that examine for Skilled or Meister status are Tri-partite being represented by employers, employees and educationalists. There are 69 such Chambers in the Federal Republic. They examine and provide packages for on-the-job training.

THE OPINION OF INDUSTRY TOWARDS FURTHER EDUCATION

111 The German Hotel Industry appears to be paying lip-service to what was taking place in the Fachschulen and we were led to believe that industry didn't feel too happy about the products from the two-year courses. They wanted to employ the practical person who had lots of experience in different jobs and who had preferably travelled dufing some stage of their training. Languages were essential and most of the employees had at least two languages. Overall we noted that there were only five schools at the Career Development level dealing with fewer than 1,000 students a year, while basic training was running at over 20,000. These courses cannot thus be regarded as *essential* to promotion.

112 We felt that there were still more job opportunities for males in the industry than for females. We began to understand why food service attracts so few young people. Waiters have no fixed wages. There is no educational provision for Industrial and Welfare Catering. All Further Vocational Education in the industry takes place in a Hotel School which did have an element of Industrial Catering within the syllabus. The Welfare and Industrial section then poaches qualified people from the Hotel field.

THE LIFE-STYLE IN GERMANY

113 We were impressed by the affluence in Germany. Wages were higher than in England and although housing and living costs were also high, the life-style was good. (A medium sized hotel (120 bedrooms) had a First Chef earning 48,000 DM per annum). There was a quality in style in the clothing, culture, housing and educational establishments. Public transport was cheap, clean and punctual. As part of all this there was a healthy demand for a range of middle to excellent restaurants and hotels.

V GENERAL OBSERVATIONS

114 The following general observations can be drawn from the groups' reports, their general experience and their own comments and conclusions:

a. The whole system of further vocational training in the FRG, leading to employment at supervisory, technician and middle management level is founded on long apprenticeship and work experience. In the UK such posts are more frequently filled by people emerging from full-time post-school courses. Comparison of courses is thus difficult. In the UK the comparable courses seem to be simultaneously at a higher academic level and more practically oriented. These differences are to an extent offset in their effects on the economy in that in the FRG students, after six or so years of work experience, will be able to bring the relevant practical application to the theory.

b. The teachers and colleges in the UK system are clearly less academic in orientation, less distant from work experience and thus work more practically than those in the FRG. Only the Volkshochschulen seemed able to match the technical college of the UK in the provision of practical courses.

c. The much praised integration and co-operation of the parties to the Dual System works much less well at the level of Further Vocational Education. At this level parallel and competing systems (Länder and Industrie) seemed more usual.

d. The main thrusts in the FRG are to ensure that the student is taught, after the right experiences, the right attitude by appropriate personnel in the right setting. This is particularly true in the Industrie based training. Those in further vocational training in the FRG are less concerned with syallabus content, standardisation and testing-sophistication than is the case in the UK.

e. The visiting party did not directly explore the in-firm and in-Chamber forms of short courses in the FRG. The party met many industrialists, had discussions and explored the brochures and course marketing and syllabus documents. The evidence is that these courses are exciting, sophisticated and worthy of further exploration.

f. The numbers taking formal qualifications in further vocational training in the FRG seemed, in comparison to the numbers taking courses at comparable levels (usually post-school) in the UK, to be low; but higher than the numbers taking formal qualifications on a post-experience basis.

g. The system of grants (and cheap loans) for career development was much admired by all the groups and very helpful for the development of genuine post-experience courses.

VI CONCLUSIONS AND RECOMMENDATIONS OF THE ENGINEERING GROUP

115 *Therefore in the light of their experiences in the Federal Republic of Germany, the visiting group on Engineering, recognising that all systems have good and bad points, requests that active consideration be given by the appropriate authorities in the United Kingdom to the following conclusions of the group, drawing on experience from the Federal Republic where this is relevant :*

a. Political as well as educational initiatives are needed to give social recognition to intermediate and lower managerial industrial ranks and their associated educational qualifications so that

   i. young people have clear career ambitions and are willing to make personal efforts and sacrifice to achieve them;

   ii. society in Britain could, as in Germany, understand and be proud of its education and training systems.

b. Examining and validating bodies in the UK should ensure that all higher or post-experience courses in the UK include training in the training of younger or less experienced workers.

c. The LEAs (and others) should review the codes for course-grading and college administration in order to provide more positive encouragement for programmes of short-courses to up-date industrial practitioners and trainers in industry.

d. The UK examining bodies should reconsider the training of draughting technicians with a view to the introduction of the craft/production skills training that that takes place in the FRG.

e. Much could be achieved by a move towards the introduction of publicly recognised ranks of Master-Craftsman and Master-Technician which would

   i. reflect British traditions of 'apprentice, journeyman, master'

   ii. provide a qualification for mature, experienced, responsible rank-holders

   iii. allow the British practice of early qualification to continue

iv. permit the growth of the passing on of skills within the industrial settings (as anticipated by NTI).

f. The government should, perhaps through the MSC, pay special attention to the needs of employees of small/medium firms, both to finance their training and to ensure that flexible opportunities exist for them.

VII CONCLUSIONS AND RECOMMENDATIONS OF THE BUSINESS AND ADMINISTRATION GROUP

116 *Therefore in the light of their experience in the Federal Republic of Germany, the visiting group on Business and Administration, recognising that all systems have good and bad points, requests that active consideration be given by the appropriate authorities in the United Kingdom to the following conclusions of the group, drawing on experience from the Federal Republic where this is relevant :*

a. The quality of output of the Dual System provides a substantial and well-informed commercial and administrative labour force - and thus commends the three-year period of quality training in the Dual System.

b. There is less concern about curricular and assessment issues - much more about the process of vocational education in the FRG. Therefore we recommend that the UK examining bodies should focus more on *process* in post-experience vocational education, thus providing a flexible range of alternatives.

c. There is in FRG a strength of commitment of industry and commerce to continuing vocational education. We therefore recommend that thought should be given by central government and the MSC to the mechanisms for stimulating industrial and commercial commitment to post-experience vocational education.

d. Challenges posed by electronic developments in the field of office technology demand a response in the UK along the lines of Informatiker, Handelsassistent approaches - i.e. continuing further vocational education beyond Fachwirt-type.[29] That is, the UK would benefit from the development of a 'Specialist-Administrator' qualified and certified in this area of work.

e. Serious consideration should be given by government in the MSC to the introduction of a system of grants and loans in order that individuals may re-enter full- or part-time study after 7 to 10 years of work experience and thus either change their career, improve their managerial level within their existing employment or pick up the new technologies.

f. The legal status of the range of managerial qualifications available provides the inducement for persons in employment to wish to develop their careers - this contrasts

markedly with the UK. We therefore recommend that, in view of dynamic changes taking place, the authorities seize the opportunity to consider the range of general managerial qualifications in the UK; and in that reconsideration to study further the Fachwirt type of qualification.

VIII CONCLUSIONS AND RECOMMENDATIONS OF THE HOTEL AND CATERING GROUP

117 *Therefore in the light of their experience in the Federal Republic of Germany, the visiting group on Hotel and Catering, recognising that all systems have good and bad points, requests that active consideration be given by the appropriate authorities in the United Kingdom to the following conclusions of the group, drawing on experience from the Federal Republic where this is relevant :*

a. (for the DES and HCITB to consider)
We particularly liked the idea of a considerable industrial period before a college course at middle management level. The craft was learn on-the-job with day-release. The academic work was learnt at college. This has implications for finance - see b. below).

b. (for the DES to consider)
The loan scheme for students (with possible partial remittance for good attainment) deserves looking at. It had to be paid back over ten years, interest free. The student was very much more motivated on a loan scheme considered the overall cost more carefully knowing that repayment had to be made in the future.

c. (for the HCITB to consider)
We liked the idea of training for the industry and not for the individual employer.

d. (for the LEAs and DES to consider)
We thought that one foreign language was essential and realised why UK students are perhaps at a disadvantage in the international market.

e. (for the LEAs and DES to consider)
We felt all FE teachers should have had an industrial background.

f. (for BTEC to consider)
We liked the idea of selective subject examining: phase-testing and end-of-unit testing taking too much time from the college course.

g. (for BTEC to consider)
The entry qualifiations for management level studies in England are English Language, Maths and a Science and one other relevant subject. Students come onto BTEC

Diploma courses mainly from school and therefore practical work is essential. The implications for course design should be reconsidered with a view to strengthening this provision.

APPENDIX A : THE DUAL SYSTEM

A1 The Federal Republic of Germany comprises the 11 Länder (States) and under the basic constitutional law of 1949 they are responsible for all educational matters. At that stage of the establishment of the Federal Republic there was a distrust of strong central government and a determination to establish the Länder as autonomous in these matters. Some co-ordination is nevertheless needed since, for example, the Basic Law guarantees the freedom of movement, the freedom to choose one's place of work, and one's place of education. Therefore the Länder must co-operate to ensure that the structures, institutions, curricula and leaving certificates are broadly comparable.

A2 The chief organ for co-ordination has been the Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland (Standing Conference of the Education Ministers of the Länder of the Federal Republic of Germany) usually known as the Kultusministerkonferenz or the KMK. This was established shortly before the Federal Republic and has made several hundred agreements, being particularly active in the period 1954 to 1964 when much standardisation was achieved. Success here is in part due to the fact that within each Land a tight central control exists.

A3 This has in effect standardised the first (or compulsory) stage of secondary education into three main types of school in which the first two years are an orientation stage with syllabuses common to all types of school so children can be easily transferred if their original placement proves unsuitable.

a. Hauptschule (Secondary Modern or Main School) attended by half the age group, and offering classes up to Grade 9 (15 years). The leaving certificate indicating a satisfactory completion of the school work is called the Hauptschulabschluß, giving entry to a variety of trade training and some full-time courses in the second stage secondary education.

b. Realschule (Technical Grammar) attended by a quarter of the age group, and offering classes up to Grade 10 (16 years). Students can then take the Mittlere Reife (Intermediate Certificate) which is an entry qualification to full-time FE (Fachoberschule). Alternatively, students may leave full-time schooling and take up employment, usually with on-the-job training and with compulsory day-release.

c. Gymnasium (Grammar School) attended by a quarter of the age group, and offering full-time academic courses up to Grade 13 (19 years), preparing students for entry to higher education. Pupils at the end of the course take the Abitur examination which gives access to University and Higher Education. Pupils who leave at the end of the tenth grade with satisfactory performance are regarded as having a Realschulabschluß or Mittlere Reife.

A4 Through the KMK an agreement has been reached that all Länder shall experiment with the Gesamtschule (Comprehensive School). Full integration is difficult because the leaving certificate for the traditional three types still dominates employers' minds. Some Länder are more enthusiastic about this provision than others. The exact proportion of entry to each type of school varies from Land to Land.

A5 At the end of compulsory schooling about 60% of the young people leave and take up a vocational training contract. The traditional (and basic) system of vocational education and training in the Federal Republic of Germany is known as the Dual System. Under this system a young person on a training contract or apprenticeship receives appropriate vocational training in the firm with which the contract is made and also, by law, has to attend a vocational school for one day a week where an appropriate vocational education is provided. This system is in essence well established and is generally highly regarded. Maintaining co-ordination in the system is not easy.

A6 Currently the detailed arrangements and legal authority of the Vocational Training half of the Dual System derive from two main Federal Acts:

a. Berufsbildungsgesetz - 1969 - (Vocational Education Act)

b. Berufsbildungsförderungsgesetz - 1981 - (Vocational Education Development Act)

The object of initial training is defined in the 1969 Act as follows :

"to provide through a systematic training programme a broadly conceived basic preparation for an occupation and the necessary technical abilities and knowledge to engage in a skilled form of occupational activity. Initial training shall also enable a trainee to acquire the necessary occupational experience."

A7 Under the Berufsbildungsgesetz (see A6a) the basic position is as follows :

a. All training contracts must be registered as being for one of the 460 or so occupations defined and established by the Bund.

b. The training contract must be registered with the Chamber with which the employer is registered (all businesses must be so registered) and supervised by that Chamber which will conduct the terminal examination and test for the award of skilled status.

c. The training and testing will be within and to curriculum and standards established in the Ausbildungsordnungen (Training Regulations) issued by the Bund.

d. All workers on training contracts are guaranteed day-release (or block-release) for the length of the contract (under Länder law, derived from KMK agreements, all workers under 18 - with or without training contracts - are required to attend Berufsschule on day-release).

e. All training must be supervised by appropriately qualified personnel. These may be appropriate higher education graduates but are usually qualified Meister (Master Craftsmen). The training may also be supervised by holders of the Pedagogical Aptitude Certificate.

f. The length of training is laid down in the regulations but can be varied by agreement if, for example, the apprentice has undertaken appropriate full-time studies at a specialist school

A8 By long tradition the Ausbildungsordnungen are issued by the Bundesministerium für Wirtschaft - BMW - (Federal Ministry for Economic Affairs) but in practice since the establishment of a Bundesministerium für Bildung und Wissenschaft - BMBW - (Federal Ministry of Education and Science) in 1969, the detailing of these is supervised mainly by the BMBW. In practice the bulk of the work is carried out by the Bundesinstitut für Berufsbildung - BIBB - (Federal Institute for Vocational Training), a large research and development institute largely responsible to and established by BMBW but having a measure of independence. BIBB also conduct basic research, statistical monitoring and develop teaching and training materials and equipment.

A9 The Länder co-operate to provide appropriate vocational education and through the KMK issue Rahmenlehrpläne, appropriate syllabuses in an outline form, thus providing a comparability of education between Länder. Most Länder have a process of further detailing this syllabus and providing advice and teaching materials to the Berufsschule. In more recent years KMK and the Bund have agreed a process for the co-ordination of a simultaneous revision of the Ausbildungsordnungen and Rahmenlehrpläne (this is described in Item 1 of the bibliography contained in Appendix I). This further improves the process of co-ordination.

A10 While it is always difficult to establish precise comparability between standards in different trades or subjects, it is still clear that many Ausbildungsordnungen (and Rahmenlehrpläne) are

not of comparable levels of difficulty or achievement when compared to *'skilled trades'* in the United Kingdom - UK. Most require a three year period of apprenticeship, some two and a half, some four. Some regulations in the older minority trades were last revised forty years ago, but the *'big forty'* that encompass 80% of all apprentices are recent. In total the system provides a powerful and systematic training.

A11 Industry and the KMK have agreed to experiment with a new Berufsgrundbildungsjahr (Vocational Education Foundation Year). This is to provide a first year of apprenticeship (or equivalent) in which the education received is broad-based and related to one of thirteen Berufsfelder (Vocational Fields) rather than one of the 460 defined trades. The objectives are that the students will be able to :

a. identify, understand and evaluate the general relationships between work, the economy and society and their own position in working life and society;

b. make a more informed decision on career choice;

c. be occupationally mobile;

d. be equipped to meet the specific demands of vocational training.

The experiment exists in co-operative form with industry releasing students to general education, and in full-time form in Berufsschule.

A12 The aggregate provision for young people then can be expressed as follows :

14% in full-time general education aiming for higher education

14% in full-time vocational courses aiming for job entry at technician level, or late apprenticeship

65% encompassed in the Dual System

3% employed as (unskilled) young workers

4% unemployed with access to a variety of extensive one-year provisions

A13 The above implies a high level of general society commitment to and respect for training. The monetary and social status of the skilled worker in FRG is high, and this is often seen within FRG as well as the UK as a key to the success of the West German economy. It should be added that the further status of Meister (Master Craftsman) may also be regarded as crucial to the status of skilled worker. This higher status is achieved by further study after experience as a craftsman and grants are available from the Bundesanstalt für Arbeit - BFA - (Federal Labour Office) to support these studies. In law one must be a Meister to register and practise certain trades, to be an employer, to take or or supervise apprentices. Many large firms also make this a normal qualification for

supervision in work places. Furthermore, skilled status gives access to further training for the qualification of Techniker (Technician).

POLITICAL ASPECTS

A14 The Industrie- und Handelskammern are organised into regional, Länder and Federal level organisations for the purpose of influencing matters of interest to them. This also applies to the Handwerkskammern. This provides a regional basis of influence. Organisations in Industrie may voluntarily join both *'industrial'* organisations for *'sector interests'* and employers organisations for collective bargaining. Local, regional and Federal level organisations exist. Meister in the Handwerk trades may join trade specific Innungen (Guilds); again, local, regional and Federal level organisations exist.

A15 At the Federal level, the Kuratorium der Deutschen Wirtschaft für Berufsbildung (Kuratorium of German Industry for Training) has been established to co-ordinate opinions on training from the large number of Federal organisations that have come to exist.

A16 In total the range of cultural, social, economic and political support for recognised skill and training in FRG is massive. It would be difficult to transfer to the UK.

APPENDIX B : LIST OF HANDWERK TRADES - METAL TRADES SUB GROUP

Schmied	Blacksmith or forger
Schlosser	Mechanic and fitter
Karosseriebauer	Body-builder
Maschinenbauer (Mühlenbauer)	Mechanical engineer (Miller)
Werkzeugmacher	Toolmaker
Dreher	Turner
Mechaniker (Nähmaschinen- und Zweiradmechaniker)	Mechanic (sewing machine and bicycle mechanic)
Kälteanlagenbauer	Refrigeration plant engineer
Büromaschinenmechaniker	Office machine mechanic
Kraftfahrzeugmechaniker	Motor vehicle mechanic
Kraftfahrzeugelektriker	Motor vehicle electrician
Landmaschinenmechaniker	Agricultural machinery mechanic
Feinmechaniker	Precision mechanic
Büchsenmacher	Gunsmith
Klempner	Plumber
Gas- und Wasserinstallateur	Gas and water fitter
Zentralheizungs- und Lüftungsbauer	Central heating and ventilation plant engineer
Kupferschmied	Coppersmith
Elektroinstallateur	Electrician
Elektromechaniker	Electrical mechanic
Fernmeldemechaniker	Telecommunications mechanic
Elektromaschinenbauer	Electrical machine engineer
Radio- und Fernsehtechniker	Radio and television technician
Uhrmacher	Watchmaker
Graveur	Engraver
Ziseleur	Embosser
Galvaniseur und Metallschleifer	Galvaniser and metal grinder
Gürtler und Metalldrücker	Brass founder and metal presser
Zinngießer	Tin founder
Metallformer und Metallgießer	Metal former and metal founder
Glockengießer	Bell-founder
Messerschmied	Cutler
Goldschmied	Goldsmith
Gold-, Silber- und Aluminiumschläger	Gold-, silver- and aluminium-beater

APPENDIX C : MEISTER COURSE IN MECHANICAL ENGINEERING - STUDENT TIMETABLE

SUBJECT	Full-time Course Hours/Week Semester		Evening Course Hours/Week Semester				Full-time Course Total Hours	Evening Course Total Hours
	I	II	I	II	III	IV		
German	1.5	-	1	-	-	-	30	20
Administrative, legal and Social Studies	3	2	1	2	1	1	100	100
Accounting	4	2	2	1	1	2	120	120
Preparation for teaching of subjects concerned	5	5	3	2	2	2	200	180
Technical Mathematics	5	-	2	2	-	-	100	80
Technical Drawing	4	-	2	2	-	-	80	80
Mechanics & Strength of Materials	2	-	-	1	1	-	40	40
Manufacturing Technology	2	2	-	1	2	-	80	60
Machine Elements & Design	2	2	-	-	1	2	80	60
Electrical Engineering	1.5	-	1	-	-	-	30	20
Control Engineering	-	2	-	-	1	-	40	20
Material Science	2	1	-	1	1	1	60	60
Cost Estimating	-	2	-	-	1	1	40	40
Practical Training	4	18	1	1	2	4	440	160
Total Hours/Week	36	36	13	13	13	13	1440	1040

		Mon	Tues	Wed	Thurs	Fri	Sat (a.m)
Hours per Day	Full-Time Course	7	6	8	6	5	4
	Evening Course	3	4	-	4	-	2

APPENDIX D

EXTRACTS FROM THE REGULATIONS RELATING TO THE FINAL EXAMINATION FOR RECOGNITION AS AN INDUSTRIEMEISTER IN THE METAL INDUSTRIES

Date : 12th December 1977

SECTION 2 : ACCEPTANCE REQUIREMENTS

(1) The following persons may be accepted for examination as master craftsmen in industry:

1. Those who have taken and passed a final examination in a recognised field of training which can be regarded as falling within the subject area "metalwork" and who can supply evidence of either a subsequent minimum of three years' appropriate practical experience, or
2. A minimum of eight years' practical experience.

(2) As an alternative to paragraph 1 above, persons who can satisfactorily show, either by the submission of documentary evidence or in some other way, that they have acquired the knowledge, skills and experience justifying admission can also be accepted for examination as master craftsmen in industry.

SECTION 3 : STRUCTURE AND CONTENT OF THE EXAMINATION

(1) The examination for master craftsmen in industry is divided into:

1. a general multi-subject part,
2. a special subject part,
3. a vocational and work pedagogy part.

(2) The examination as per paragraph 1 above will be a written and oral one, carried out without prejudice to paragraph 7; in addition, in the case of the vocational and work pedagogy part, which consists of practical work, the examination will take the form of practical exercises in accordance with sections 4 to 6. If the written examination is carried out in programmed form, its duration may be shortened.

(3) The individual parts of the examination may be tested in any desired sequence at various times, but a start must be made on the last part of the examination, at the latest, two years after the first day on which the first part of the examination was held.

SECTION 4 : GENERAL MULTI-SUBJECT PART

(1) The following subjects will be examined in this part:

1. basic principles of cost considerations in business dealings,
2. basic principles of legal considerations in business dealings,
3. basic principles of co-operation on the shop-floor.

(2) In the examination section entitled "Basic Principles of Cost Considerations in Business Dealings" the candidate will be required to show that he possesses a basic knowledge of economics and that he can recognise and assess economic considerations. In addition, he must be able to prove, in particular, that he can assess organisational problems on the shop-floor, together with their relevance as cost factors, and that he can apply the necessary organisational techniques which he has learnt from practical examples. The following aspects may be examined in this field:

1. In economics:
   a. production forms,
   b. economic systems,
   c. national and international forms of enterprises and organisations and their amalgamations,
   d. national and international economic organisations and associations.

2. In management studies:
   a. business organisation:
      aa. structural organisation
      bb. work planning,
      cc. deployment of labour,
      dd. control of labour.
   b. organisation and information techniques,
   c. cost accounting.

(3) In the examination section entitled "Basic Principles of Legal Considerations in Business Dealings" the candidate will be required to show evidence of a knowledge of basic principles of law. He must demonstrate, in particular, that, in cases relating to business and based on actual practice, he can recognise and assess the relevance of legal regulations to his sphere of activity. The following aspects may be examined in this field:

1. In the Basic Law:
   a. basic rights
   b. legislation
   c. administration of justice.

2. In industrial and social law:

   a. the law on employment contracts,
   b. legislation for the protection of labour,
   c. legislation for the protection of the environment,
   d. works council legislation; co-determination rights,
   e. wage agreement legislation,
   f. social insurance legislation.

(4) In the examination section entitled "Basic Principles of Co-operation on the Shop-Floor" the candidate will be required to show that he possesses a basic knowledge of sociology and that he can recognise and assess sociological influences on the shop-floor. The following aspects may be examined in this field:

1. Basic principles of human social behaviour:

   a. development process of the individual,
   b. group behaviour.

2. Shop floor influences on social behaviour:

   a. organisation of work and social measures,
   b. work-place and arrangement of premises,
   c. basic principles of leadership.

3. Influence of the master craftsman on co-operation on the shop floor:

   a. the role of the master craftsman,
   b. co-operation and communication,
   c. leadership techniques and behaviour.

(5) The examination in the subjects listed in paragraph 1., Nos. 1 to 3 is a written one and, in the case of the subject referred to in paragraph 1, No. 3, oral as well.

(6) The written examination should not exceed six hours, and will consist of one paper per subject to be completed under supervision. Minimum times per subject are:

1. Basic principles of cost considerations in business dealings - 2 hours,
2. Basic principles of legal considerations in business dealings - 1 hour,
3. Basic principles of co-operation on the shop floor - 1½ hours.

(7) In the case of the oral examination in the subject referred to in paragraph 1, No. 3, the candidate is required to show that he is in a position to recognise certain situations which are typical of the trade, to identify their causes and to make appropriate proposals for solving the problems. The exercise will be based on a given practical, shop-floor situation. The examination will not exceed 30 minutes per candidate.

(8) The written examination in the subject listed in paragraph 1, Nos. 1 and 2 can be supplemented, either at the candidate's request or at the discretion of the examination panel, by an oral test if such a test is vital for the passing of the examination or for a clear assessment of the candidate's performance. This supplementary test will not exceed 10 minutes per subject and candidate. Sentences 1 and 2 of paragraph 7 apply accordingly.

APPENDIX E : SCHEDULE OF TEACHING PERIODS FOR THE BETRIEBSWIRT COURSE

FACHSCHULE FOR APPLIED ECONOMICS AT THE EBERHARD-GOTHEIN SCHOOL, MANNHEIM

	Basic grade (1st year)	Specialist grade (2nd year)
1. Core subjects		
German	2	2
English	3	3
Social Studies	2	2
Economics	3	-
Mathematics applied to economics	2	2
Industrial Management	4	-
Accountancy	3	-
Law	5	-
Data Processing	2	-
Statistics	2	2
Methods in mental work	2	-
2. Specialist subjects		
- Main subject from among the following:		12
Logistics Financing Accountancy & Taxation Personnel, Social & Training Matters Marketing/Export Office Organisation & Data Processing		
- First subsidiary subject		3
- Second subsidiary subject from among the following:		3
Logistics Financing & Accountancy Taxation Personnel Matters Marketing Office Organisation & Data Processing		
Sub-Total	30	29
3. Optional subjects		
(Additional training to obtain the specialised college final diploma)		
Mathematics	3	3
Physics	2	2
4. Working groups		
inter alia preparation for instructor aptitude examination		

APPENDIX F : A FACHWIRT SYLLABUS

The course content and study hours for an Industriefachwirt qualification are as follows :

	Semester I	Semester II
Economics	24 (hours)	21 (hours)
Business Administration	-	30
Accounting & Finance	27	24
Personnel	-	30
Law	30	30
Statistics	24	-
Oral & Written Method	30	-
	135	135

	Semester III	Semester IV
Business Organisation	30	-
Production Methods	21	18
Costing	30	27
Personnel	30	-
	111	45

	Semester III	Semester IV
Management Methods	-	30
Business Organisation	30	-
Materials	21	18
Production Methods	21	18
Selling	24	21
Costing	30	27
Personnel	30	-
	156	114

APPENDIX G : NOTES AND REFERENCES

1 The German terms used have no exact equivalent in English. Therefore on their first use an approximate translation is given and thereafter they are used on their own. A full Glossary is given in Appendix J to this report.

2 New Apprenticeships in FRG

	Applications Made	Places Offered	Contracts Signed	Places Not Filled	Applicants Not In Apprenticeship
May/Oct 1982	667,000	651,000	631,000	20,000	36,000
May/Oct 1983	655,000?	685,000?	?	?	?

Source: Embassy of FRG, London, Labour and Social Affairs Report, 3/83.

3 See Item 19 in the Bibliography in Appendix K to this report.

4 See Items 17 and 29 in the Bibliography in Appendix K to this report.

5 For further detailed discussion see Item 26 in the Bibliography in Appendix K to this report.

6 : Table adapted from data published in the Labour & Social Affairs Report 4/83 from the 'Embassy of the Federal Republic of Germany", London.

7 See Item 29 in the Bibliography in Appendix K to this report.

8 See Number Four in this series of reports for a full discussion of the Meister and Meister-training.

9 The syllabus and curriculum development of these courses are described in Item 31 in the Bibliography contained in Appendix K to this report.

10 Number Four in this series of reports contains fuller discussions of syllabuses. Extracts are in Appendix D to this report.

11 This broad category includes clerical, sales, technical type employment as well as jobs which, by virtue of difficulty of work or supervisory responsibilities are classified as "Meister".

12 This being self-employed outside the 125 designated Handwerk trades (see paragraph 9).

13 Facharbeiter and Geselle are terms that are best translated as skilled worker: although Facharbeiter is a term associated with Industrie and can be more literally translated as specialist worker; while Geselle, associated with Handwerk, is more literally an associate.

14 For further discussion see Item 1 in the Bibliography Appendix K to this report.

15 See Item 12 in the Bibliography contained in Appendix K to this report.

16 The following table has been constructed from data in Item 14 in the Bibliography in Appendix K to this report. It represents an estimate of the current position. Rounding of data leads to slight inconsistencies in the data:

	Qualified Meister		"Status" Meister	Total
	Handwerk Meister	Industriemeister plus Specialist Meister in Industrie		
Working in 'Handwerk'	455,280 (33%)	38,340 (3%)	123,120 (9%)	616,740 (45%)
Working in 'Industrie'	146,340 (10%)	83,780 (6%)	223,440 (16%)	453,560 (32%)
Working Elsewhere	211,380 (15%)	19,880 (1%)	109,440 (8%)	340,700 (24%)
Totals	813,000 (58%)	142,000 (10%)	456,000 (33%)	1,411,000 (100%)

17 These claims to tradition are clearly important, particularly in Handwerk. The national headquarters of the Handwerk organisations in Bonn is proud of its seventeeth century tapestries and nearly every publication is illustrated with antique wood-cut prints. This continuity was severely shaken in the period of economic liberalism from 1848 to 1900 when the organisational basis (the Guilds) of the craft traditions was deliberately attacked and has since had to be rebuilt on the Chambers, with very weak Guilds. Again in 1945 all organisational forms collapsed and were deliberately re-developed along lines which took a lot of the old traditions but amended them. The history of training in the period 1945 to 1969 is very well told in Item 10 in the Bibliography in Appendix K to this report.

18 See Item 31 in the Bibliography contained in Appendix K to this report.

19 The training for the Training Aptitude Certificate is described in Number Four in this series of reports. See also paragraph 19 of this report.

20 This table is constructed from data abstracted from Items 15, 16, 20 and 21 in the Bibliography in Appendix K to this report.

21 See also items 13, 14 and 16 in the Bibliography in Appendix K to this report.

22 The leaving certificate of the Realschule gives the right of entry to the Fachschule, i.e. it is a Fachschulreife Hauptschule leavers can obtain the Fachschulreife by other part-time study.

23 There is a variety of full-time courses that can be taken between 15 and 20, as well as higher education routes, whereby young people may enter clerical or administrative work. See also paragraph 86 and note 25 below.

24 See items 24, 25, 27 and 30 in the bibliography in Appendix K to this report.

25 See also note 23 above. Federal regulations mean that all entrants to skilled work may take basic and advanced qualifications, without study, but after longer periods of practical work.

26 See also item 16 in the bibliography in Appendix K to this report.

27 See also item 18 in the bibliography in Appendix K to this report.

27 See also item 16 in the bibliography in Appendix K to this report.

27 See also item 18 in the bibliography in Appendix K to this report.

APPENDIX H : NAMES OF PARTY, PROCESS OF WRITING

The list of people on the visiting party was drawn up by the Further Education Staff College after seeking nominations and was approved by the Department of Education and Science. The names of the visiting party are given below. Before leaving the United Kingdom - UK - for the Federal Republic of Germany - FRG - the party was supplied with briefing material in English and German and met for further briefing. During the visit the group met several times and determined an outline structure of the report, a division of labour in drafting the main sections and the main orientation of the report. Russ Russell integrated the sections. On return to the UK the party met again and jointly worked on the written material. It has been since edited into this form and put to the party for confirmation before finalising.

The views contained in this report do not necessarily represent the views of the institutions represented or organising the work.

Name of Member:	Nominated By:
HOTELS GROUP	
Mr. Ray Brett, Managing Director, Red Coach Restaurant, Banstead, Surrey.	Hotel, Catering and Institutional Management Association
Miss Brenda Hughes, Deputy Principal, Southwark College, London.	Further Education Staff College and Hotel and Catering Industry Training Board
Mrs. Barbara Sargeaunt, Head of Department of Catering & Home Economics, Chelmer Institute of Higher Education.	Hotel and Catering Training Board
Mr. Felix Bihlmeier, Principal Lecturer in German, Bristol Polytechnic.	(Group Interpreter)
Mr. Russ Russell, Staff Tutor, Further Education Further Education Staff College, Coombe Lodge.	(Programme Co-ordinator)

ENGINEERS GROUP

Mr. Len Bill, Head of Vocational Curriculum Services, City & Guilds of London Institute.	City & Guilds of London Institute
Mr. Ron Gray, Assistant Chief Officer (Education), Technician Education Council.	Technician Education Council
Dr. Philip Booth, Associate Dean, Faculty of Engineering, Middlesex Polytechnic.	Department of Education & Science
Mr. Thomas Burness, Depute Principal, Glenrothes & Buckhaven Technical College.	Scottish Education Department

BUSINESS STUDIES GROUP

Mr. D. Campbell, Principal, Mid-Cheshire College of FE.	Further Education Staff College
Mr. Gavin Thomas, HMI, Her Majesty's Inspector, The Welsh Office, Cardiff.	The Welsh Office
Dr. Gisela Shaw Senior Lecturer in German, Bristol Polytechnic.	(Group Interpreter)
Mr. David Parkes, Staff Tutor, Further Education Staff College, Coombe Lodge.	(Group Organiser)
Mr. Tony Clarke, Senior Training Adviser, Training Division, Manpower Services Commission.	Manpower Services Commission

APPENDIX I : INSTITUTIONS VISITED

Meetings took place with the following individuals or the staff of the organisations listed. Not all members of the visiting party attended each meeting (see also paragraph 16 of this report).

FEDERAL LEVEL

Bundesanstalt für Arbeit
Bund Länder Kommission für Planung und Förderung
Kultusministerkonferenz
Bundesministerium für Bildung und Wissenschaft
Deutscher Industrie- und Handelstag
Bundesinstitut für Berufsbildung
Kuratorium der Deutschen Wirtschaft

NORDRHEIN-WESTFALEN

Wirtschaftsfachschule für das Gaststätten- und Hotelgewerbe, Dortmund
Bergbau A.G., Dortmund
Gewerbliche Schule (West), Essen
Hotel Lennehof, Dortmund
Industrie- und Handelskammer, Dortmund
Kultusministerium Nordrhein Westfalen (Schulamt, Dortmund)

BADEN-WÜRTTEMBERG

Kultusministerium, Hauptstelle, Stuttgart)
Akademie für Datenverarbeitung, Boblingen,
Fritz-Gabler Schule, Heidelberg
Carl-Benz Schule, Mannheim
Eberhard-Gothein Schule, Mannheim
Industrie- und Handelskammer, Rhein-Neckar
ZWF (Heidelberger Fortbildungsseminare für Fachkräfte der Gastronomie)
Volkshochschule (Mannheim)
Deutsche Bank AG (Mannheim)
Hotel Wartburg (Mannheim)
Daimler Benz AG (Mannheim)
Karl Freudenberg AG
Heidelberger Druckmaschinerie AG
Brown Bavarian Company (BBC)

OTHERS

Steigenberger Hotelgesellschaft KGA)Frankfurt)
Intercontinental Hotels (Deutschland) (Frankfurt)
Prof. G. Lachenmann, University of Karlsruhe.

APPENDIX J : GLOSSARY OF TERMS AND ABBREVIATIONS

ABITURIENT
Person qualified for university entrance

AKADEMIE FÜR DATENVERARBEITUNG
Academy for Data Processing

ARBEITSFÖRDERUNGSGESETZ (AFG)
Work Promotion Act

AUSBILDUNGSORDNUNGEN
Training Regulations issued by the Federal Ministry of Economic Affairs

BANKFACHWIRT

BERUFLICHE WEITERBILDUNG
Further vocational training

BERUFSBILDUNGSFÖRDERUNGSGESETZ
Vocational Education Development Act

BERUFSBILDUNGSGESETZ
Vocational Education Act

BERUFSFELD/ER
Vocational fields

BERUFSGRUNDBILDUNGSJAHR
Basic vocational training year. This is available in full-time form or co-operative form with industry. In some Länder the full-time form is called the Berufsgrundschuljahr

BERUFSKOLLEG II
The second year of a full-time vocational college which exists only in Baden-Württemburg

BERUFSSCHULE
Part-time vocational school

BETRIEBSMEISTER
Firms master

BETRIEBSWIRT
General Administrator

BETRIEBSWIRTSCHAFT
Economics of organisations

BETRIEBSWIRTSCHAFTLEHRE
Instruction about the economics of organisations

BUND
Federal Authorities

BUNDESANSTALT FÜR ARBEIT
Federal Employment Institute

BUNDESINSTITUT FÜR BERUFSBILDUNG
Federal Institute for Vocational Education

BUNDESMINISTERIUM FÜR BILDUNG UND WISSENSCHAFT
Federal Ministry of Education and Science

BUNDESMINISTERIUM FÜR WIRTSCHAFT
Federal Ministry for Economic Affairs

BUND-LÄNDER KOMMISSION FÜR BILDUNGSPLANUNG UND FORSCHUNGSFÖRDERUNG
Federal and Länder Commission for Educational Planning and the Advancement of Research

DEUTSCHE INDUSTRIE- UND HANDELSTAG
German Federation of Chambers of Industry and Commerce

DIPLOM
University first degree, equivalent to BA etc

ELEKTROTECHNIK
Electrical engineering

FACHARBEITER
Skilled worker, specialist worker

FACHHOCHSCHULREIFE
Entry certificate to the Fachhochschule (ie leaving certificate of the Fachoberschule)

FACHHOCHSCHULE(N)
Polytechnic(s)

FACHKAUFMANN
Specialist Administrator, Functional Specialist

FACHOBERSCHULE
Full-time vocational college

FACHSCHULE
Advanced technical school

FACHSCHULEREIFE
Qualifying certificate for entry to a Fachschule

FACHSTUFE
Specialist studies

FACHWIRT
Business manager

GASTRONOMIE
Gastronomy or restaurant catering

GESAMTSCHULE
Comprehensive school

GESELLE
Skilled worker, Jouneyman

GEWERBLICHE SCHULE
In-house training centre

GYMNASIUM
Grammar School

HANDELSASSISTENT
Administrative assistant in commerce

HANDELSBETRIEB
Commercial Company

HANDELSFACHWIRT
General commercial administrator

HANDELSWIRT
Common abbreviation of Handelsfachwirt

HANDWERK
Craft Trade

HANDWERKSKAMMER
Chamber of Crafts

HANDWERKSMEISTER
Master Craftsman

HAUPTSCHULABSCHLUß
Qualifying leaving certificate from the Hauptschule

HAUPTSCHULE
Secondary modern or main school

HOTEL- UND GASTSTÄTTENGEWERBE
Hotel and Catering Industry

INDUSTRIEFACHWIRT
Industrial administrator

INDUSTRIEMEISTER
Industry Master

INDUSTRIE- UND HANDELSKAMMER
Chamber of Industry and Commerce

INFORMATIKER
Information technologist

INNUNG(EN)
Guild(s)

KAMMER
Chamber

KÜCHENMEISTER
Master Chef or Kitchenmaster

KULTUSMINISTERIUM
Ministry of Education

KULTUSMINISTERKONFERENZ
The Conference of Ministers of Education of the Länder

KURATORIUM DER DEUTSCHEN WIRTSCHAFT FÜR BERUFSBILDUNG
Kuratorium of German Industry for Training

LAND/LÄNDER
State/states that comprise the Federal Republic of Germany

MEISTER
Master or Master Craftsman

MEISTERSCHULE
Training school for Master Craftsmen

METALL
Metal or engineering industry

MINISTERIUM
Ministry

MITTLERE REIFE
Intermediate Certificate

RAHMENLEHRPLÄNE
Outline curricula issued by the Kultusministerkonferenz

REALSCHULABSCHUß
Qualifying leaving certificate of the Realschule

REALSCHULE
Technical Grammar School

RECHTSLEHRE
Instruction in law

SEKRETÄRIN
Secretary

SERVIERMEISTER
Service Master

STAATLICH GEPRÜFTER BETRIEBSWIRT
State certified business administrator

STAATLICH GEPRÜFTER TECHNIKER
State certified technician

STÄNDIGE KONFERENZ DER KULTUSMINISTER DER LÄNDER IN DER BUNDESREPUBLIK DEUTSCHLAND (KULTUSMINISTERKONFERENZ)
Standing Conference of the Cultural and Educational Ministers of the Länder of the Federal Republic of Germany

TECHNIKER
Technician

TECHNIKERSCHULE
Technicians' School

TECHNISCHES GYMNASIUM
Technical Grammar School

VOLKSHOCHSCHULE(N)
Adult Education Institute(s)

VOLKSWIRTSCHAFTSLEHRE
Social and Economic Studies

WEITERBILDUNG
Continuing education or post-experience education

WERKSMEISTER
Firms master(or Supervisor)

ADV	Akadamie für Datenverarbeitung
AFG	Arbeitsforderungsgesetz
BBC	Brown Bavarian Company
BFA	Bundesanstalt für Arbeit
BIBB	Bundesinstitut für Berufsbildung
BMBW	Bundesministerium für Bildung und Wisenschaft
BMW(i)	Bundesministerium für Wirtschaft
BTEC	Business and Technician Education Council
DAG	Deutsche Angestellten Gewerkschaft (German Clerical Workers' Union)
DES	Department of Education and Science
DGB	Deutscher Gewerkschaftsbund
DIHT	Deutscher Industrie- und Handelstag
Dipl-Ing	Diplomingenieur (Graduate Engineer)
DM	Deutsche Mark
FE	Further Education
FESC	Further Education Staff College
FRG	Federal Republic of Germany
HCITB	The Hotel and Catering Industry Training Board
HMI	Her Majesty's Inspector
KMK	Kultusministerkonferenz
LEA	Local Education Authority
MSC	Manpower Services Commission
NC	Numerically Controlled
NTI	New Training Initiative
TAC	Training Aptitude Certificate
UK	United Kingdom

APPENDIX K : FURTHER NOTES AND REFERENCES

INTRODUCTION TO THE EDUCATION SYSTEM IN THE FRG

The following items are descriptive accounts of the educational system in general.

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